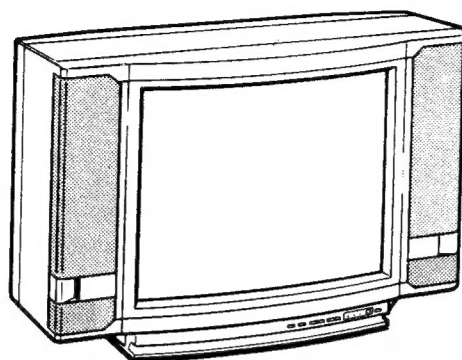


# KV-27HSR10<sup>5</sup>

## RM-763

## SERVICE MANUAL



*US Model*

*Chassis No. SCC-C59C-A*

*Canadian Model*

*Chassis No. SCC-C60C-A*

## ANU-1 CHASSIS

**Note:** The service manual for RM-763 has been issued separately.

### MODELS OF THE SAME SERIES

KV-27HSR10	KV-32HSR10
KV-27XBR10/27XBR60	
KV-32XBR10/32XBR70	

### SPECIFICATIONS

<b>Television system</b>	American TV standards
<b>Channel coverage</b>	VHF: 2-13 UHF: 14-69 Cable TV: 1-125
<b>Picture tube</b>	Microblack Trinitron tube 27-inch picture measured diagonally 29-inch picture tube measured diagonally
<b>Antenna</b>	75-ohm external antenna terminal for VHF/UHF
<b>Input</b>	VIDEO 1, 2 and 3 IN S VIDEO IN (4-pin mini DIN) Y: 1 Vp-p, 75-ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75-ohms Video (phono jacks): 1 Vp-p, 75-ohms unbalanced, sync negative Audio (phono jacks): 500 mVrms (100% modulation) Impedance: 47 kilohms
<b>Output</b>	MONITOR OUTPUT S VIDEO OUTPUT (4-pin mini DIN) Y: 1 Vp-p, 75-ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75-ohms Video (phono jacks): 1 Vp-p, 75-ohms unbalanced, sync negative Audio (phono jacks): 500 mVrms (100% modulation) Impedance: 10 kilohms

**AUDIO OUTPUT (VARIABLE)** (phono jacks)  
More than 408 mVrms at the maximum volume setting (variable)  
Impedance: 5 kilohms

**Power requirements** 120V AC, 60Hz

**Power consumption** 225W (max.)  
1.5W (in standby condition)

**Accessories supplied**  
Remote Commander RM-763 with 4 size AA (R6) batteries (1)  
Antenna connector (1)

**Optional accessories**  
U/V mixer EAC-66  
Connecting cable VMC-810/820S  
YC-15V/30V  
Video rack  
SU-235X (with super-woofer)  
SU-235X (with super-woofer)  
SU-251 (black)  
SU-330 (black)

Design and specifications are subject to change without notice.

**TRINITRON® COLOR TV**  
**SONY®**


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### WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.


### SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

### ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

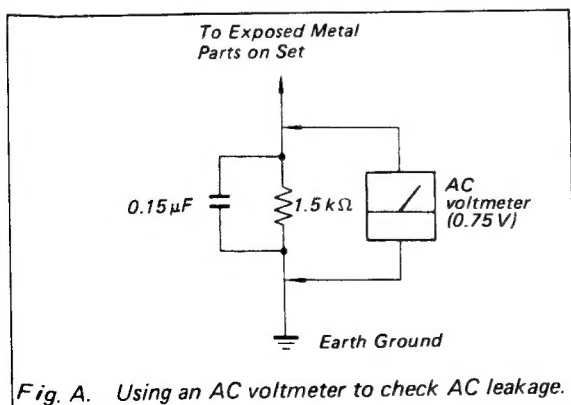
### ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

## SAFETY CHECK-OUT (US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).  
Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.



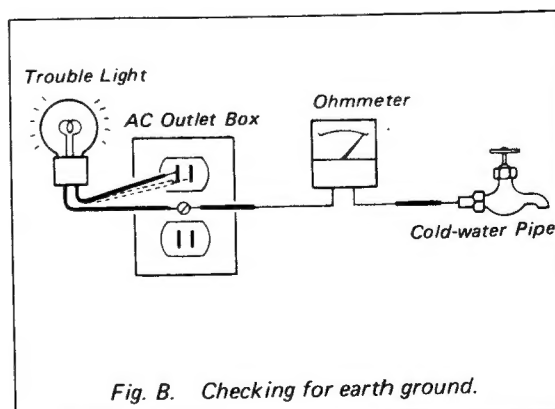
### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

### HOW TO FIND A GOOD EARTH GROUND

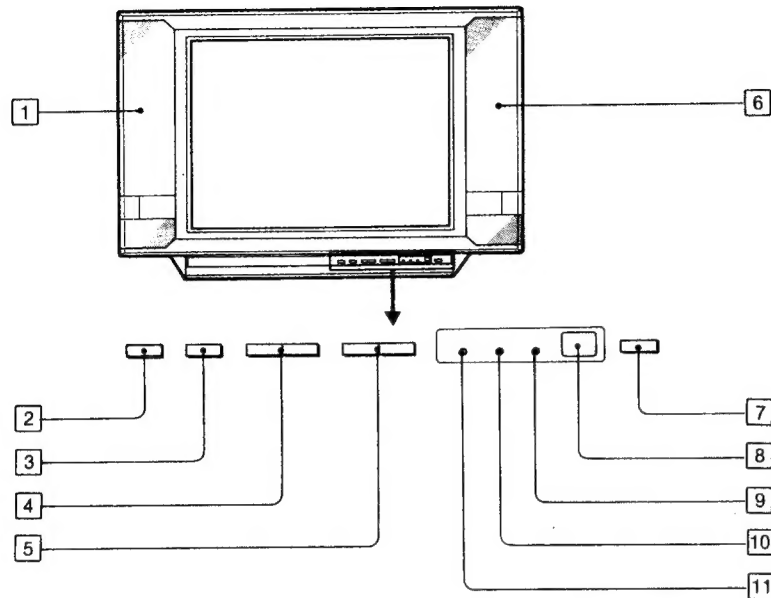
A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60–100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)



# SECTION 1 GENERAL

## 1-1. LOCATION OF CONTROLS

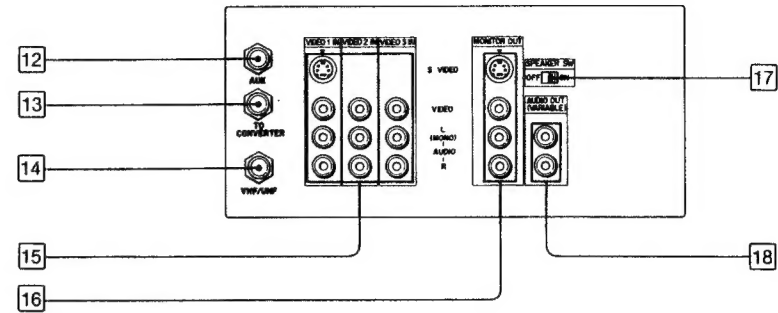
Front panel



- 1 Left speaker (tweeter and woofer)
- 2 (●) SRS (Sound Retrieval System) button
- 3 TV/VIDEO button
- 4 VOLUME buttons
- 5 CHANNEL buttons
- 6 Right speaker (tweeter and woofer)

- 7 POWER switch
- 8 Remote sensor
- 9 SLEEP indicator
- 10 STEREO indicator
- 11 TIMER indicator

Rear panel

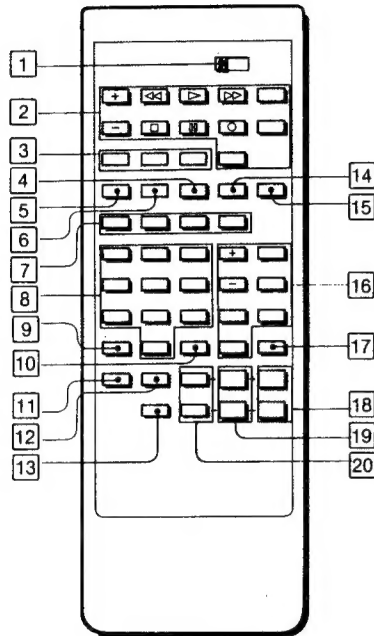


- 12 AUX (auxiliary) terminal
- 13 TO CONVERTER terminal
- 14 VHF/UHF antenna terminal
- 15 VIDEO 1, 2, 3 IN jacks (phono jacks)

- 16 MONITOR OUT jacks (phono jacks)
- 17 SPEAKER SW (switch)
- 18 AUDIO OUT (VARIABLE) jacks (phono jacks)

## Remote Commander RM-763

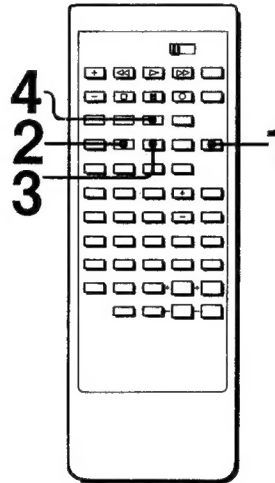
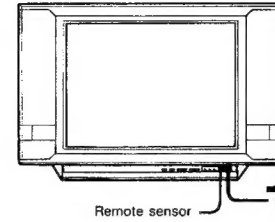
The buttons with \* mark have the same function as the buttons with the same or similar mark on the TV.





- 1 VTR 1/2/3/MDP (multi disc player) selector
- 2 Sony VCR/multi disc player operation buttons
- 3 Channel presetting buttons
- 4 ANT/AUX (antenna/auxiliary) button
- 5 MUTE button
- 6 CABLE button
- 7 Input select buttons (TV, VIDEO 1, VIDEO 2, VIDEO 3)\*
- 8 Channel number buttons
- 9 DISPLAY button
- 10 ENTER button
- 11 TIME button
- 12 MTS (multichannel TV sound) button
- 13 SRS (sound retrieval system) button\*
- 14 SLEEP button
- 15 POWER button\*
- 16 A/V WINDOW (audio and video adjusting) buttons
- 17 JUMP button
- 18 CH (channel) scan buttons\*
- 19 VOL (volume) control buttons\*
- 20 PICTURE buttons

## 1-2. PRESETTING TV CHANNELS

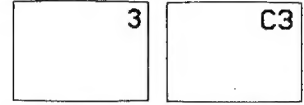
### To Preset All Receivable Channels Automatically




- 1** Press POWER on the TV or the Remote Commander to turn the TV on.
 
- 2** Press CABLE so that the appropriate mode appears.
 



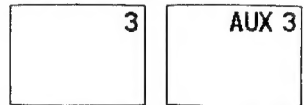
To preset VHF or UHF channels





To preset cable TV channels
- 3** Press ANT/AUX according to the channel to be preset.
 



To preset VHF, UHF or regular cable TV channels



To preset pay cable TV channels
- 4** Press AUTO PGM.
 

"AUTO PROGRAM" is displayed on the screen and receivable channels (other than the channels already preset) will be preset in numerical sequence. The channels previously preset remain in the unit's memory. When no more channels can be found, the programming stops and the lowest numbered channel is displayed.

### Receivable channels of this TV are:

VHF: 2-13  
UHF: 14-69  
Cable: 1-125

To add the channels that could not be preset with automatic programming because their signal strength was too weak, or to erase unnecessary channels.

Follow the steps in "To preset only the desired channels or to erase unnecessary channels" on the next page.

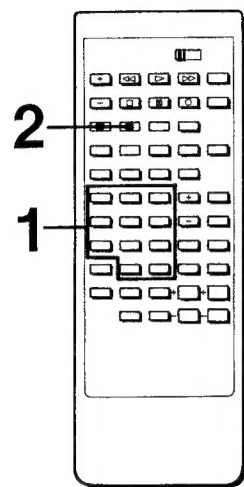
### To check preset channels

Press CH +/-.

If the indication "VIDEO 1, VIDEO 2, VIDEO 3" is displayed on the screen

Press the TV/VIDEO button on the TV or the TV button on the Remote Commander so that a channel number appears.

# To Preset Only the Desired Channel or to Erase Unnecessary Channels



**1** Press the channel number button(s) and then ENTER to select the channel to be added or erased.

**2** To add channels — Press ADD.

To erase channels — Press ERASE.

Repeat steps 1 and 2 for other channels to be added or erased.

**When a VHF or UHF channel is erased**  
The cable TV channel with the same number is also erased and vice versa.

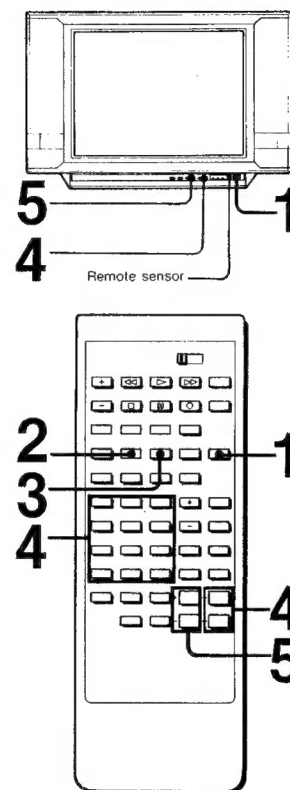
**Cable TV channel chart\***  
Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

Number on this TV	1	5	6	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
Corresponding CATV channel	A-8	A-7	A-6	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q			
31	32	33	34	35	36	37	38	39	.....	93	94	95	96	97	98	99	100	101	102	.....	123	124	125
R	S	T	U	V	W	W+1	W+2	W+3	.....	W+57	W+58	A-5	A-4	A-3	A-2	A-1	W+59	W+60	W+61	.....	W+82	W+83	W+84

Check with your local cable TV company for more complete information on the available channels.

\*The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

## 1-3. WATCHING TV PROGRAMS



**1** Press POWER on the TV or the Remote Commander to turn the TV on.

**2** Press CABLE so that the appropriate mode appears.

**3** Press ANT/AUX according to the channel to be watched.

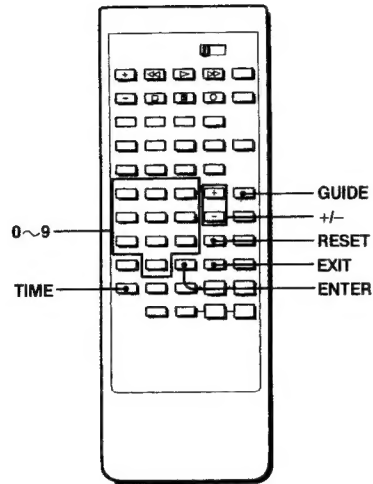
**4** Select a channel in one of the following two ways:

**5** Press VOL + or - to adjust the volume.

## 1-4. USING THE GUIDE FUNCTION

The GUIDE function calls up the on-screen menu and instructions on how to set the current time, timer, channel block.

Buttons used for GUIDE function



- All setting will be erased from the unit's memory if the unit is unplugged, or if a power failure occurs.
- The ON/OFF TIMER and CHANNEL BLOCK will operate only if the clock is set correctly.

### Setting the Clock

Example: To set the clock to 5:30 PM, Monday.

<b>1</b>	<p><b>Press GUIDE.</b> Press repeatedly until "CURRENT TIME SET" turns red.</p>		<p>GUIDE</p> <p>CURRENT TIME SET ON/OFF TIMER CHANNEL BLOCK</p>
<b>2</b>	<p><b>Press ENTER.</b></p>		<p>CURRENT TIME SET</p> <p>SUN ____ AM</p> <p>SELECT TODAY'S DAY. PLEASE USE [ + ] [ - ] &amp; [ ENTER ].</p>
<b>3</b>	<p><b>Press +/- until the desired day of the week appears.</b></p>		<p>CURRENT TIME SET</p> <p>MON ____ AM</p> <p>SELECT TODAY'S DAY. PLEASE USE [ + ] [ - ] &amp; [ ENTER ].</p>
<b>4</b>	<p><b>Press ENTER.</b> If the time is already set, the current set time will appear. To clear these numbers, press any number.</p>		<p>CURRENT TIME SET</p> <p>MON ____ AM</p> <p>SET THE CURRENT TIME. PLEASE USE [ 0-9 ] &amp; [ ENTER ].</p>
<b>5</b>	<p><b>Press 0-9 to set the desired time.</b> (For 5:30, press 0,5,3,0)</p>		<p>CURRENT TIME SET</p> <p>MON 05:30 AM</p> <p>SET THE CURRENT TIME. PLEASE USE [ 0-9 ] &amp; [ ENTER ].</p>
<b>6</b>	<p><b>Press ENTER.</b></p>		<p>CURRENT TIME SET</p> <p>MON 05:30 AM</p> <p>SELECT AM OR PM. PLEASE USE [ + ] [ - ] &amp; [ ENTER ].</p>

**7**

Press +/- to set AM or PM.

CURRENT TIME SET

MON \_5:30 PM

SELECT AM OR PM.  
PLEASE USE (+) (-) & [ENTER].

**8**

Press ENTER.

The moment ENTER is pressed, the clock will start.  
Now, the clock is set. The indication will disappear after approx. 5 seconds.

CURRENT TIME SET

MON \_5:30 PM

CURRENT TIME IS SET. THANK YOU.

**To restore the normal picture**  
Press EXIT.

**To clear the current time setting**  
Display the "CURRENT TIME SET" page and press RESET, then EXIT.

**To reset the setting**  
Display the "CURRENT TIME SET" page and press RESET, then repeat steps 3 to 8.

**To display the current time**  
Press TIME.

**Notes**

- The internal clock of this TV operates on a 12-hour cycle. If a 24-hour cycle number is entered, it will be cleared when ENTER is pressed.

12:00 AM stands for midnight.  
12:00 PM stands for noon.

**Setting the ON/OFF Timer**

ON/OFF TIMER allows the program of your choice to appear on the screen at the desired time.

Example: Set the timer to turn on the TV to channel 8 at 1:00 PM for 3 hours every Monday through Friday.

**1**

Press GUIDE.

Press repeatedly until "ON/OFF TIMER" turns red.

GUIDE

CURRENT TIME SET

ON/OFF TIMER

CHANNEL BLOCK

**2**

Press ENTER.

If the clock has not been set, "PLEASE SET CURRENT TIME FIRST" appears on the screen.  
Go back to page 26.

ON/OFF TIMER

EVERY SUN-SAT

\_\_\_:\_\_\_ AM \_H CH\_\_\_

SELECT THE DAY.  
PLEASE USE (+) (-) & [ENTER].

**3**

Press +/- until the desired day of the week appears.

ON/OFF TIMER

EVERY MON-FRI

\_\_\_:\_\_\_ AM \_H CH\_\_\_

SELECT THE DAY.  
PLEASE USE (+) (-) & [ENTER].

**4**

Press ENTER.

ON/OFF TIMER

EVERY MON-FRI

\_\_\_:\_\_\_ AM \_H CH\_\_\_

SET THE TIME.  
PLEASE USE (0-9) & [ENTER].

**5**

Press 0-9 to set the desired time.

(For 1:00, press 0,1,0,0.)

ON/OFF TIMER

EVERY MON-FRI

01:00 AM \_H CH\_\_\_

SET THE TIME.  
PLEASE USE (0-9) & [ENTER].

**6**

Press ENTER.

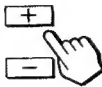

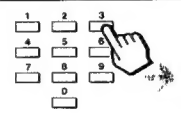

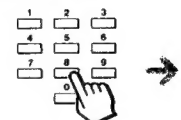

ON/OFF TIMER

EVERY MON-FRI

01:00 AM \_H CH\_\_\_

SELECT AM OR PM.  
PLEASE USE (+) (-) & [ENTER].





<b>7</b> Press +/- to set AM or PM.		ON/OFF TIMER EVERY MON-FRI 01:00 PM _H CH_... SELECT AM OR PM. PLEASE USE [+] [-] & [ENTER].
<b>8</b> Press ENTER.		ON/OFF TIMER EVERY MON-FRI 01:00 PM _H CH_... SET THE DURATION. PLEASE USE [0-9] & [ENTER].
<b>9</b> Press a number button to set the duration. (Up to 9 hours can be set).		ON/OFF TIMER EVERY MON-FRI 01:00 PM 3H CH_... SET THE DURATION. PLEASE USE [0-9] & [ENTER].
<b>10</b> Press ENTER.		ON/OFF TIMER EVERY MON-FRI 01:00 PM 3H CH_... SET THE CHANNEL PLEASE USE [0-9] & [ENTER].
<b>11</b> Press 0-9 to set the desired channel number.		ON/OFF TIMER EVERY MON-FRI 01:00 PM 3H CH_8 SET THE CHANNEL PLEASE USE [0-9] & [ENTER].
<b>12</b> Press ENTER. Now ON/OFF timer is set. The TIMER indicator on the TV lights up.		ON/OFF TIMER EVERY MON-FRI 1:00 PM 3H CH_8 ON/OFF TIMER IS SET. THANK YOU.

## Setting the Channel Block

CHANNEL BLOCK prevents a channel from appearing on the screen for preset hours. We suggest you use this function to prevent children from watching undesirable programs.

Example: Set the CHANNEL BLOCK at 4:00 PM (for 1 hour), every Saturday, at channel 12.

<b>1</b> Press GUIDE. Press repeatedly until "CHANNEL BLOCK" turns red.		GUIDE CURRENT TIME SET ON/OFF TIMER CHANNEL BLOCK
<div data-bbox="1321 638 1803 694" style="border: 1px solid black; padding: 5px; text-align: center;">           Step 2-11: Same as Setting the ON/OFF Timer.            (See page 28.)         </div>		
<b>12</b> Press ENTER. Now CHANNEL BLOCK is set. At the preset time, the picture of the selected channel will be blocked from view and the sound will be muted. A red "BLOCKED" indication will appear on the screen while the channel is blocked.		CHANNEL BLOCK EVERY SATURDAY 4:00 PM 2H CH_12 CHANNEL BLOCK IS SET. THANK YOU.

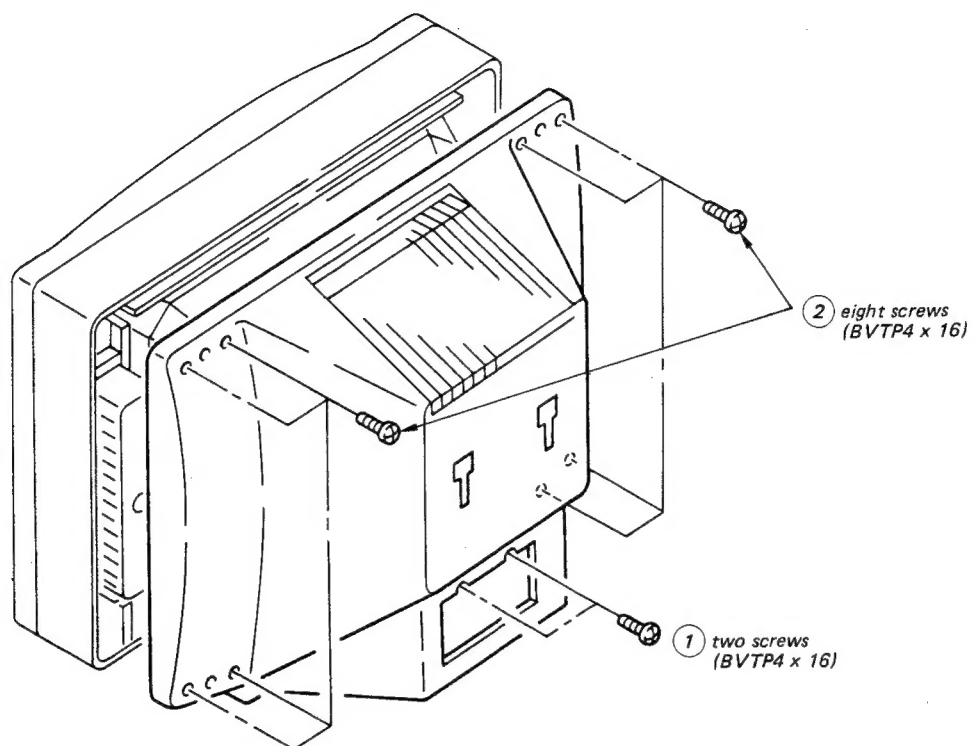
To restore the normal picture  
Press EXIT.

To clear the setting  
Display the "CHANNEL BLOCK" page and press RESET, then EXIT.

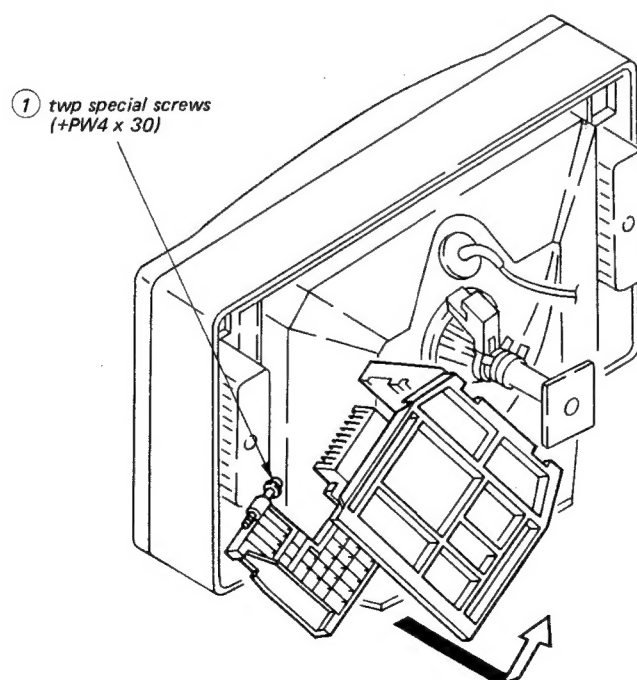
To reset the setting  
Display the "CHANNEL BLOCK" page and repeat steps from the beginning.

## SECTION 2 DISASSEMBLY

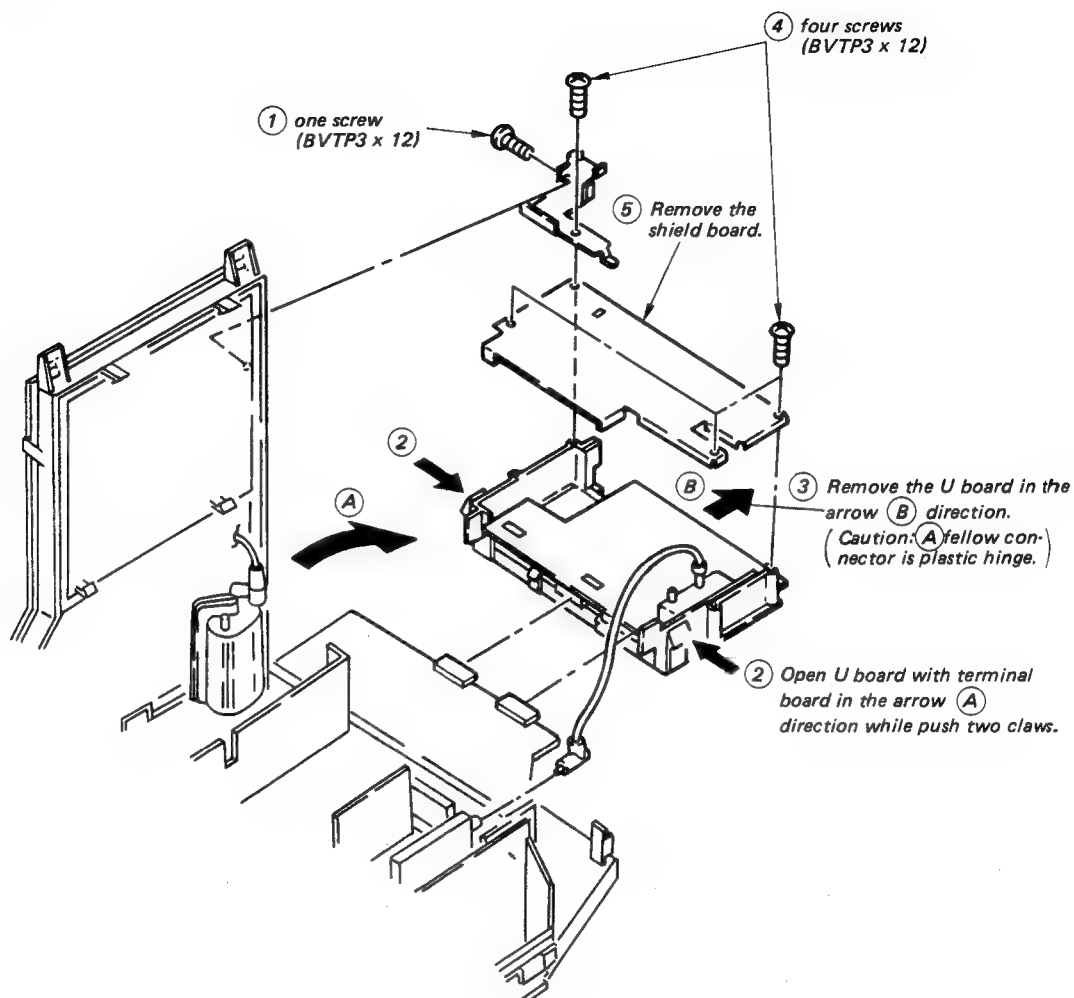
### 2-1. REAR COVER REMOVAL



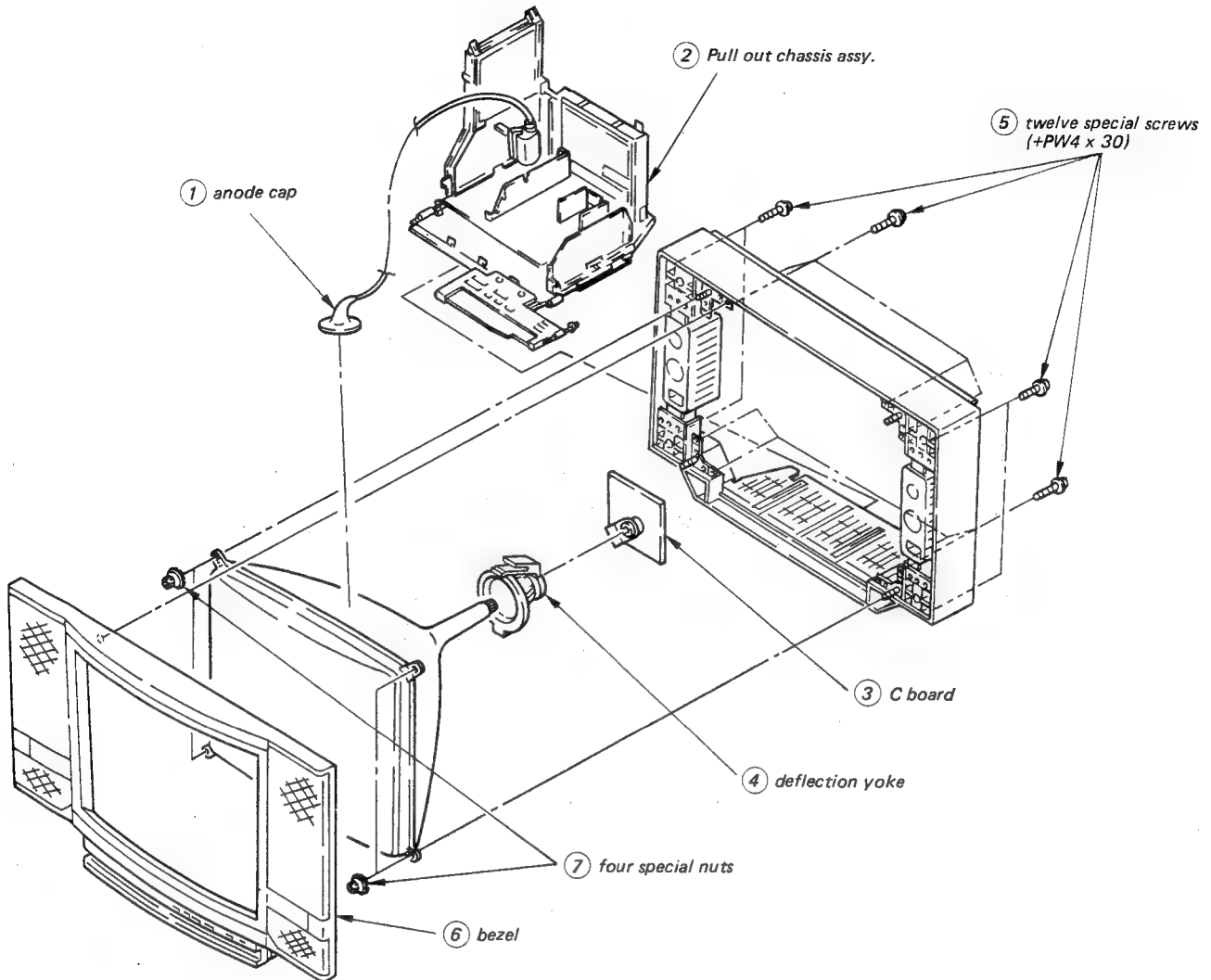
### 2-2. SERVICE POSITION



## 2.3. U BOARD REMOVAL



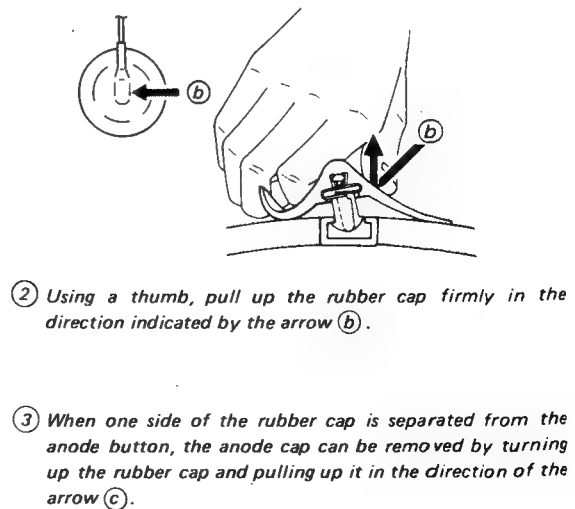
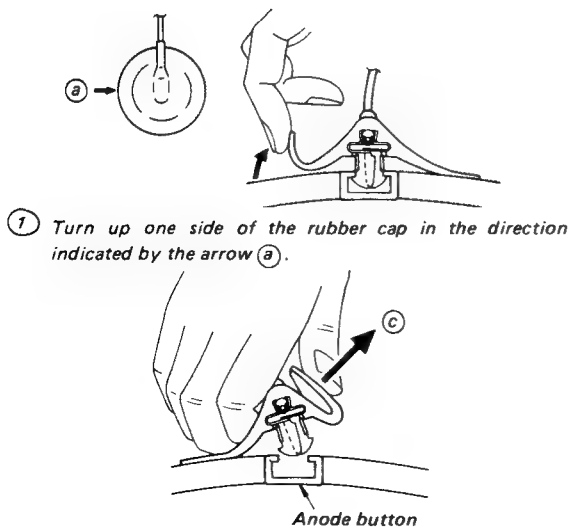
## 2-4. PICTURE TUBE REMOVAL



## 2-5. REMOVAL OF ANODE CAP

### ANODE CAP REMOVAL

#### • Removing Procedures



## SECTION 3

### SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted :

PICTURE control ..... normal  
BRIGHTNESS control ..... normal

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

**Note :** Test Equipment Required.

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter

#### Preparation :

- Set the side of the unit with the PICTURE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

### 3-1. BEAM LANDING

1. Input a raster signal with the pattern generator.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Fig. 2.
3. Turn the raster signal of the pattern generator to red.
4. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides, evenly. (Fig. 3.)
5. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig. 1.)
6. Switch over the raster signal to blue and green and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.
8. When landing at the corners is not right, adjust by using the magnet. (Fig. 4.)

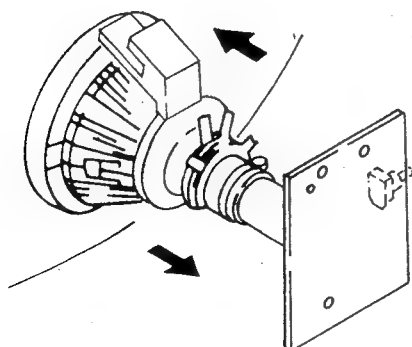


Fig. 1.

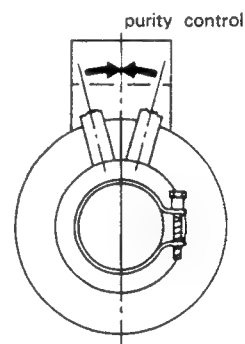


Fig. 2.

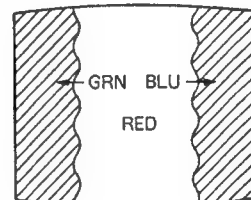


Fig. 3.

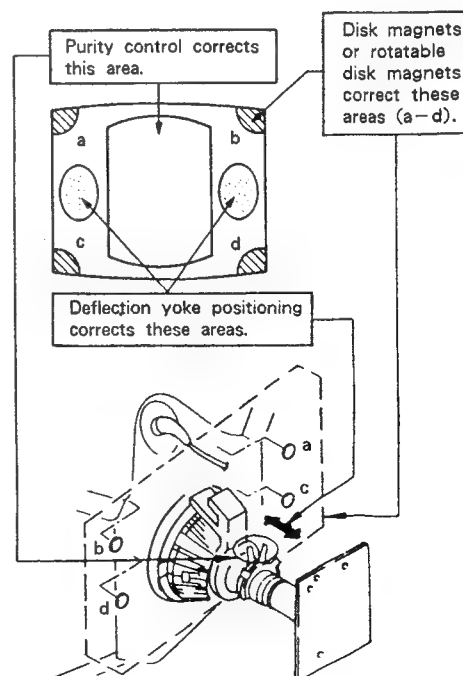


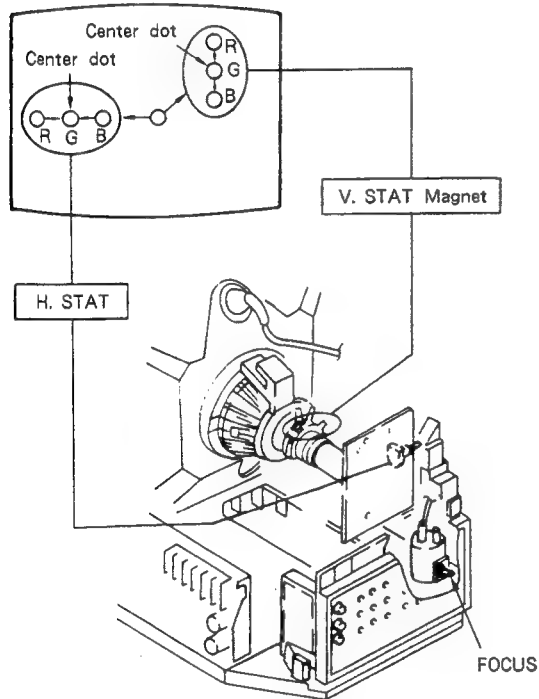
Fig. 4.

### 3-2. CONVERGENCE

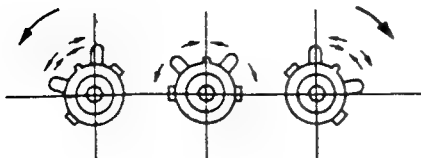
#### Preparation :

- Before starting, perform FOCUS, H. SIZE, V. LIN and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

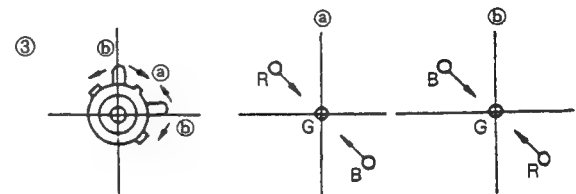
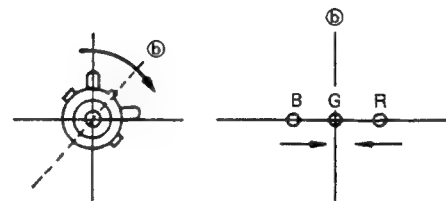
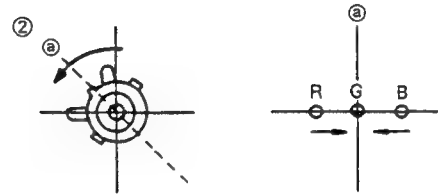
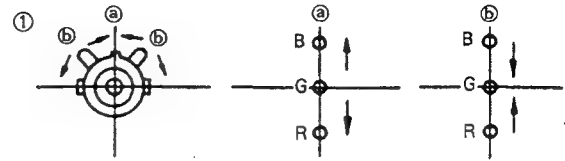
#### (1) Horizontal and Vertical Static Convergence



1. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen. (Horizontal movement)
  2. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen. (Vertical movement)
  3. If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform horizontal convergence adjustment using H. STAT VR and V. STAT magnet as shown below. (In this case, H. STAT VR and V. STAT magnet effect each other.)
- Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



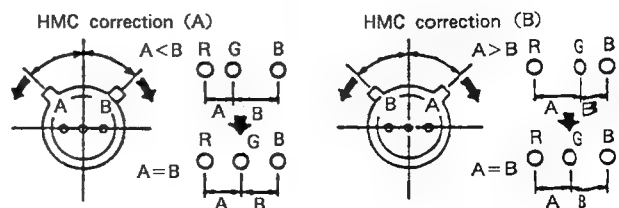
4. When the V. STAT magnet is moved in the direction of arrow ② and ③, red, green and blue dots move as shown below.



If the blue dot do not coincide with red and green dots, perform following steps.

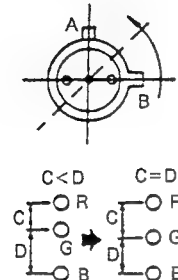
#### • HMC and VMC correction for BMC (Hexapole) Magnet

1. HMC (Horizontal, Mis, convergence) correction and motion of the Electron Beam with the BMC Magnet.

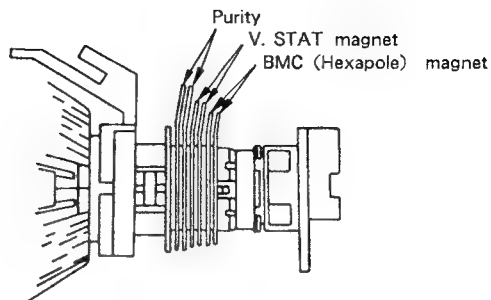
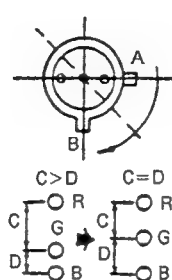


2. VMC (Vertical, Mis, convergence) correction and motion of the Electron Beam with the BMC Magnet.

VMC correction (A)



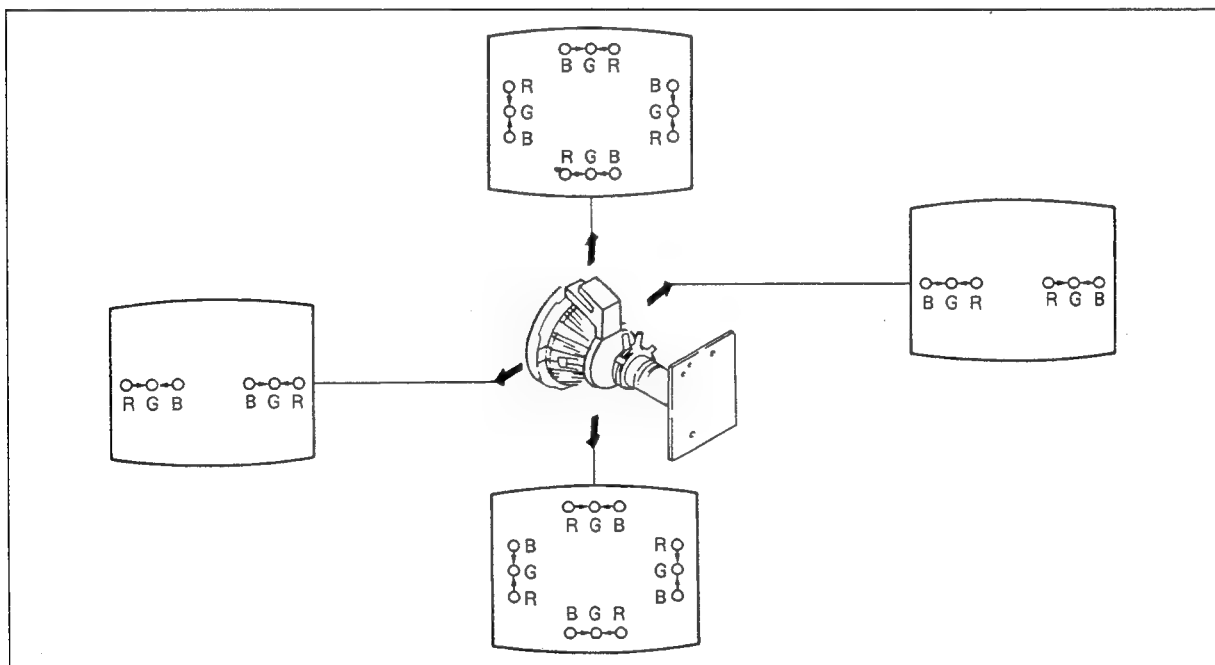
VMC correction (B)



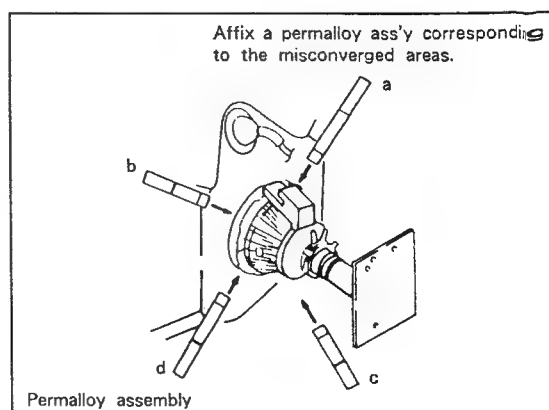
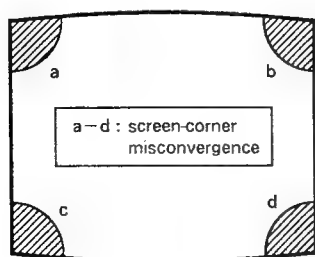
## (2) Dynamic Convergence Adjustment

### Preparation :

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
- Slightly loosen deflection yoke screw.
  - Remove deflection yoke spacers.
  - Move the deflection yoke for best convergence as shown below.
  - Tighten the deflection yoke screw.
  - Install the deflection yoke spacers.



## (3) Screen-corner Convergence

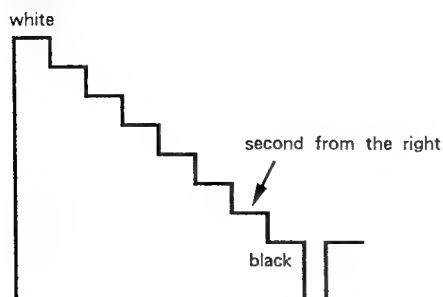


### 3-3. FOCUS

1. Tune in an off-air signal.
2. PICTURE → control to normal.
3. Adjust the focus VR on A board so that the focus at the center of the screen is optimum.  
A magenta ring will appear if the focus is adjusted only in the center of the screen.  
Adjust evenly throughout the entire screen.

### 3-4. G2, WHITE BALANCE ADJUSTMENTS (Using the remote commander)

1. CUT OFF (G2) ADJUSTMENT (RV701)
  - 1) Set the PICTURE and BRIGHT to normal.
  - 2) Confirm G1 voltage within  $30.0 \pm 5$  V.
  - 3) Apply DC voltage of 180 V to the cathodes of R, G and B from DC stabilized power source.
  - 4) While watching the picture, adjust the G2 volume (RV701) immediately before the fly-back line disappears.
2. WHITE BALANCE ADJUSTMENT
  - 1) Set to service mode.
  - 2) Press VIDEO → RESET to normal.
  - 3) Receive an entire white signal.
  - 4) Set the PICTURE to minimum.
  - 5) Select S BRT with [1] and [4], and then set the level to minimum with [3] and [6].
  - 6) Select G CUT and B CUT with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
  - 7) Set the PICTURE to maximum.
  - 8) Select G AMP and B AMP with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
3. SUB BRIGHT ADJUSTMENT
  - 1) Set to service mode.
  - 2) Receive a stairs wave of black and white from the pattern generator.
  - 3) BRIGHT ..... normal  
PICTURE ..... minimum
  - 4) Select S BRT with [1] and [4], and adjust SUB BRIGHT level with [3] and [6] so that the stripe second from the right is dimly lit.





## SECTION 4

### SAFETY RELATED ADJUSTMENT

#### ✱ R567, CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ✱ on the schematic diagram).

IC301, IC653, PM501, D539, C556, R556, R564, R567, R663, T500

##### 1. Preparation before confirmation

- 1) Turn the POWER switch ON, and receive entirely white signals and set the PICTURE and BRIGHT controls to maximum.
- 2) Confirm that the voltage of the check terminal of pin ② of F-5 (F BOARD) is more than 127.0 V DC when the set is operating normally with 120.0  $\pm$  2.0 V AC supply.

##### 2. Hold-down operation confirmation

- 1) Turn the POWER switch ON, and receive entirely white signals and adjust ABL current to 1620  $\pm$  50  $\mu$ A with PICTURE and BRIGHT etc controls.
- 2) Apply DC voltage of over 140.0 V gradually to the check terminal of pin ② of F-5 (F BOARD) via 1T40 from the DC stabilized power source. Confirm that the minimum voltage is less than 145.0 V DC whereby the raster disappears during operation of hold-down circuit.

NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

- 3) Turn the POWER switch ON, and receive dot signals and adjust ABL current to 150  $\pm$  20  $\mu$ A with PICTURE and BRIGHT etc controls.
- 4) Apply DC voltage of over 140.0 V gradually to the check terminal of pin ② of F-5 (F BOARD) via 1T40 from the DC stabilized power source. Confirm that the minimum voltage is less than 145.0 V DC whereby the raster disappears during operation of hold-down circuit.

NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

##### 3. Hold-down readjustment

When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R567 (a component marked with ✱).

#### ✱ R549, CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ✱ on the schematic diagram).

IC301, PM501, R549, R564

##### 1. Preparation before confirmation

- 1) Remove R663 on the F board and connect a variable resistor (RV1: about 4.7 k $\Omega$  to 10 k $\Omega$ ) between pin ① of IC653 and B+ line.
- 2) Supply 120  $\pm$  2.0 V AC to with variable auto-transformer.

##### 2. Hold-down operation confirmation

- 1) Turn the POWER switch ON, and receive entirely white signals and adjust ABL current to 1620  $\pm$  50  $\mu$ A with PICTURE and BRIGHT etc controls.
- 2) Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is less than 142.5 V DC whereby the raster disappears during operation of hold-down circuit.

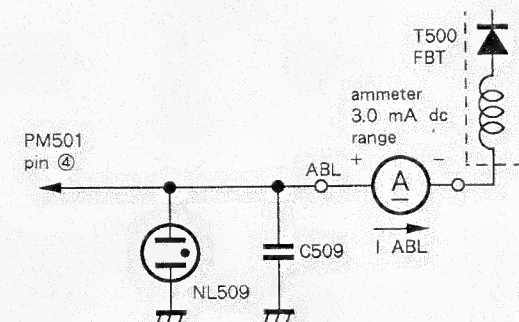
NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

- 3) Turn the POWER switch ON, and receive dot signals and adjust ABL current to 150  $\pm$  20  $\mu$ A with PICTURE and BRIGHT etc controls.
- 4) Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is less than 144.0 V DC whereby the raster disappears during operation of hold-down circuit.

NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

##### 3. Hold-down readjustment

When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R549 (a component marked with ✱).



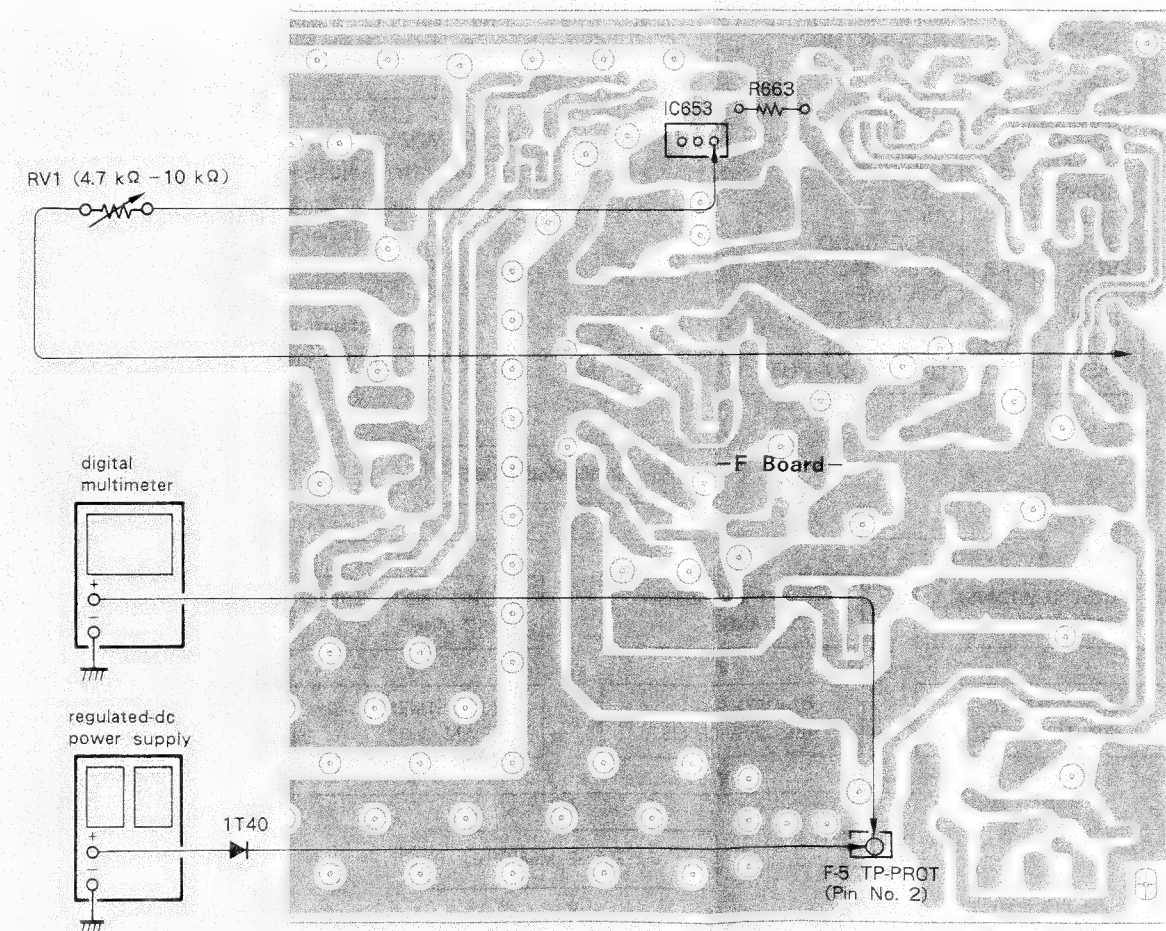
\*Use a digital multimeter whose input impedance over 100 M $\Omega$  when confirming the voltage of the protector terminal.

#### B+ VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC653 and R663.

##### 1. The B+ voltage confirmation

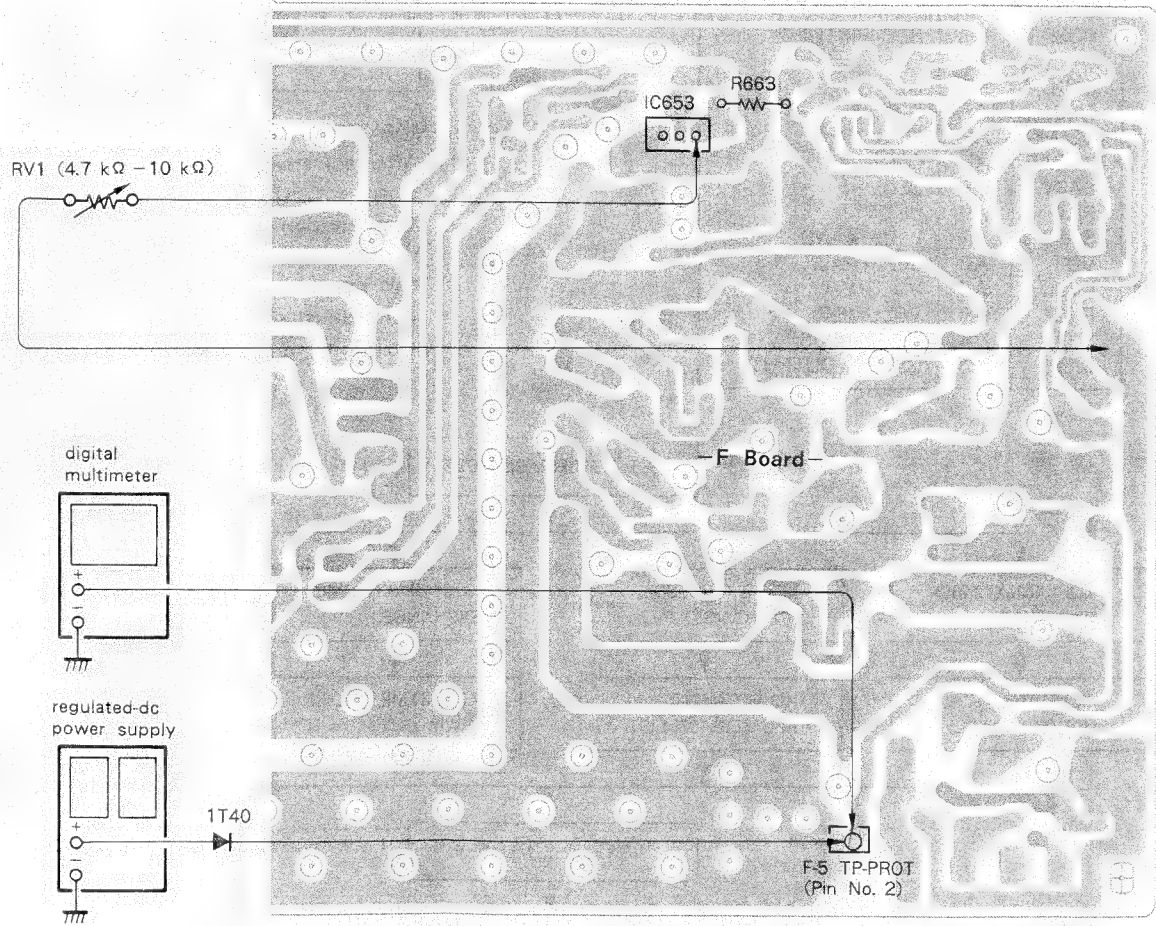
- 1) Supply 130  $\pm$  5 V AC to with variable auto-transformer.
- 2) Receive entirely monoscope signals.
- 3) Set the PICTURE control and the BRIGHT control into initial reset.
- 4) Confirm the voltage of TP91 is less than 137.0 V DC.
- 5) If step 4) is not satisfied, replace IC653 and R663 repeat above steps.



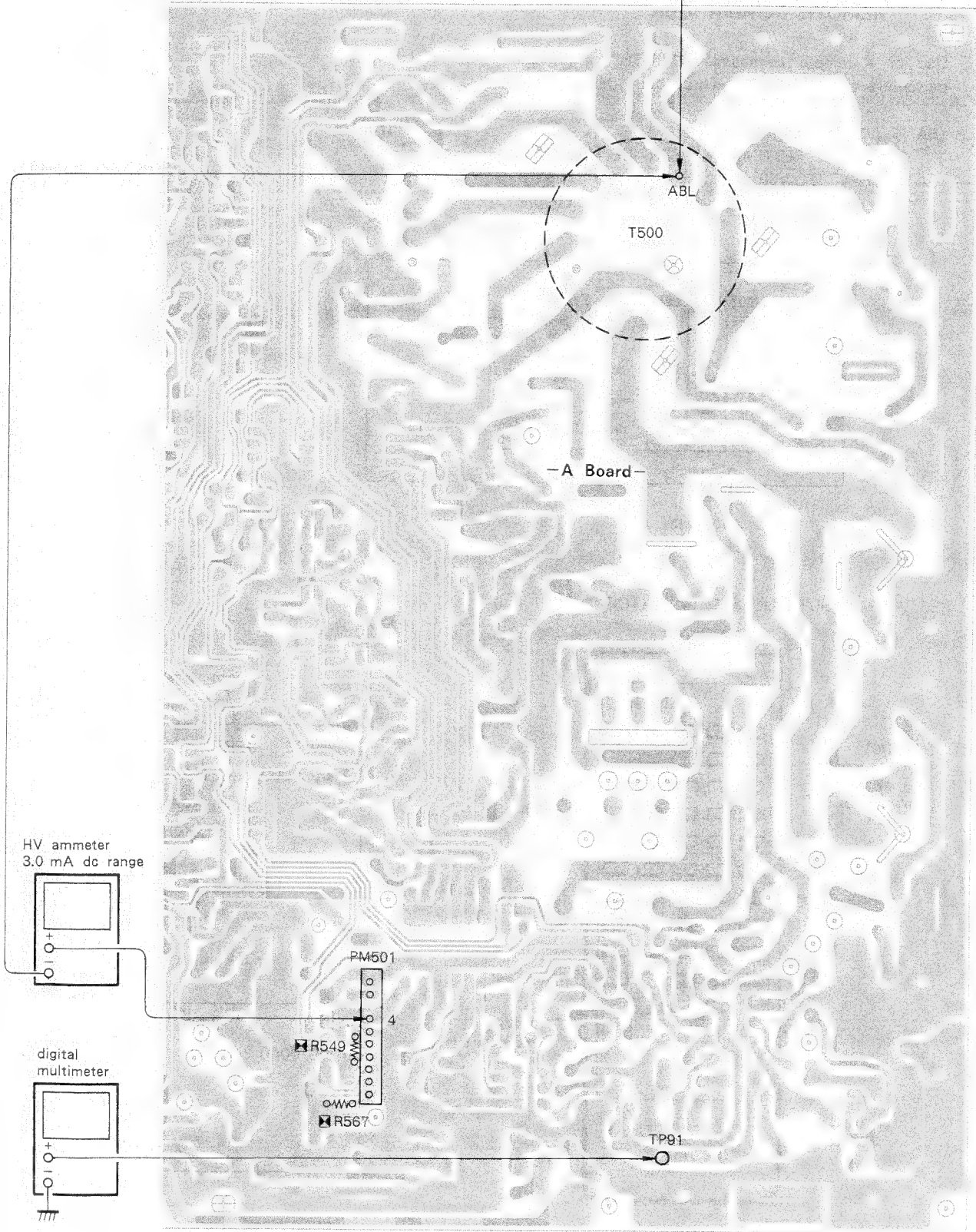
B+ VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC653 and R663.

1. The B+ voltage confirmation
  - 1) Supply 130  $\pm$  5 V AC to with variable auto-transformer.
  - 2) Receive entirely monoscope signals.
  - 3) Set the PICTURE control and the BRIGHT control into initial reset.
  - 4) Confirm the voltage of TP91 is less than 137.0 V DC.
  - 5) If step 4) is not satisfied, replace IC653 and R663 repeat above steps.



Disengage the ABL terminal of FBT from the foil by un-soldering and connect negative probe to the ABL pin of FBT.





SECTION 5  
CIRCUIT ADJUSTMENTS

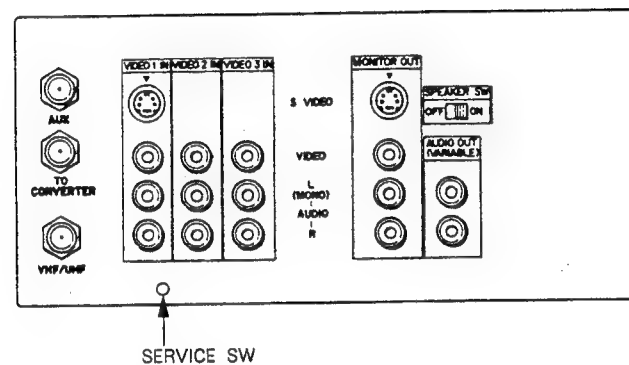
5-1. ELECTRICAL ADJUSTMENT BY  
REMOTE COMMANDER

Use of a remote commander (RM-763) can be performed all circuit adjustments about this model.

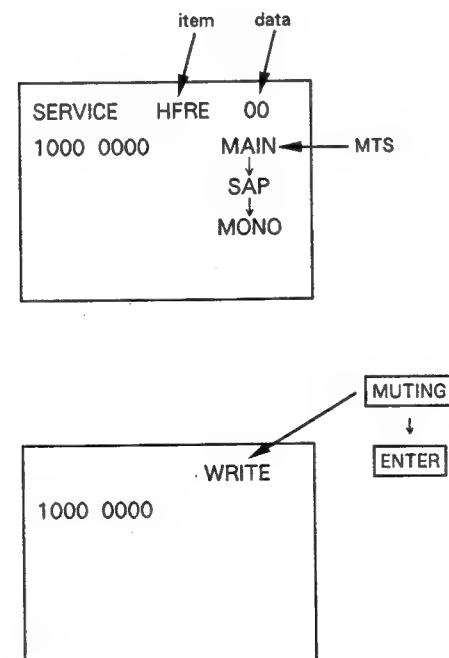
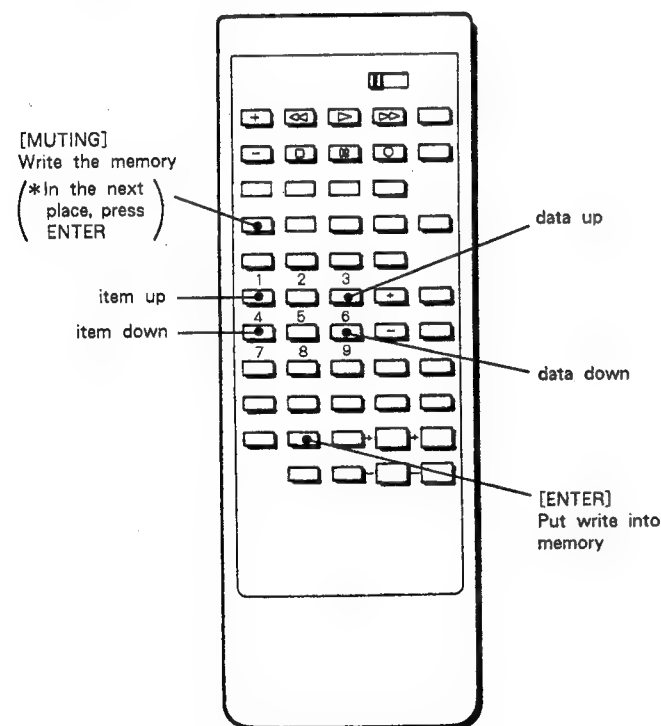
[BASIC ADJUSTMENTS]

1. METHOD OF SETTING THE SERVICE MODE

- 1) Press **POWER** button on the remote commander while pressing the switch on the rear of the set.



2. ADJUST BUTTONS AND INDICATOR



3. AN ITEM OF ADJUSTMENTS

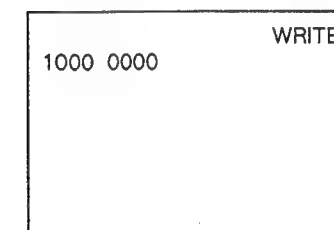
ITEM		NAME REGISTER
HFRE	VP	H-FREQUENCY
VFRE	VP	V-FREQUENCY
VPOS	VP	V-SHIFT
VSIZ	VP	V-SIZE
VLIN	VP	V-LINEARITY
VSCO	VP	S-CORRECTION
HPOS	VP	H-PHASE
HSIZ	VP	H-SIZE
PAMP	VP	PIN AMP.
CPIN	VP	CORNER PIN
PPHA	VP	PIN PHASE
VCOM	VP	V-COMP.
GAMP	VP	GREEN AMP.
BAMP	VP	BLUE AMP.
GCUT	VP	GREEN CUTOFF
BCUT	VP	BLUE CUTOFF
CROM	VP	CHROMA TRAP
SPIX	VP	PICTURE
SHUE	VP	HUE
SCOL	VP	COLOR
SBRT	VP	BRIGHT
RGBP	VP	RGB PICTURE
MPX	AP	ATT
FILO	AP	I1
DEEM	AP	I2
STEV	AP	OSC1
SAPV	AP	OSC2
PILO	AP	PILOT
SEP	AP	WIDE BAND
VD	AP	SPECTRAL
LVOL	AP	VOLUME-L
RVOL	AP	VOLUME-R
SHAR	AP	SHARPNESS
DISP	VP	ⓈPWM OUTPUT

4. METHOD OF CANCELLATION FROM SERVICE MODE

Set to standby condition (Press **POWER** button on the commander). In the next place, press **POWER** button again, hereupon it becomes TV mode.

5. METHOD OF WRITE FOR MEMORY

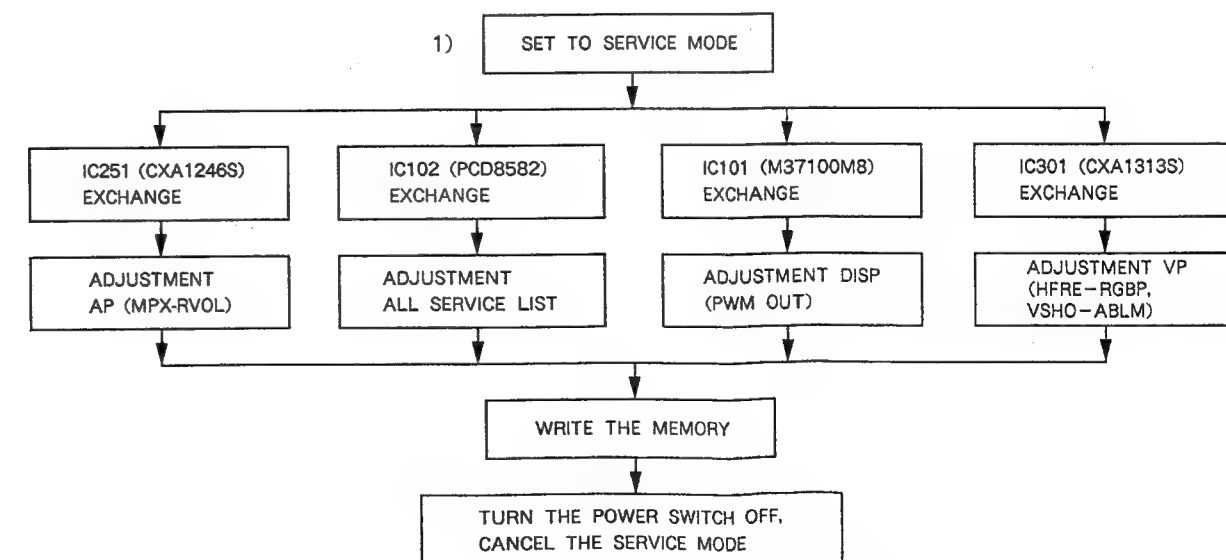
- 1) Set to service mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTING** button to indicate WRITE (RED) on screen.
- 4) Press **ENTER** button to write for memory. (At this time, WRITE (YELLOW) is indicated on screen.)



6. MEMORY WRITE CONFIRMATION METHOD

- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to service mode.
- 3) Call the adjusted items again, confirm they were adjusted.

7. ADJUSTMENT WHEN REPLACING IC



NOTE: If service mode is canceled before write for memory, the adjustment data is not recorded. Please write for memory certainly after adjustment.

## 3. AN ITEM OF ADJUSTMENTS

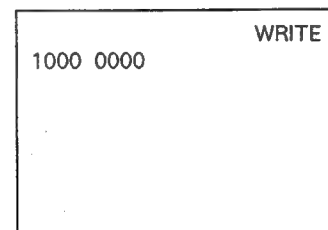
ITEM		NAME REGISTER
HFRE	VP	H-FREQUENCY
VFRE	VP	V-FREQUENCY
VPOS	VP	V-SHIFT
VSIZ	VP	V-SIZE
VLIN	VP	V-LINEARITY
VSCO	VP	S-CORRECTION
HPOS	VP	H-PHASE
HSIZ	VP	H-SIZE
PAMP	VP	PIN AMP.
CPIN	VP	CORNER PIN
PPHA	VP	PIN PHASE
VCOM	VP	V-COMP.
GAMP	VP	GREEN AMP.
BAMP	VP	BLUE AMP.
GCUT	VP	GREEN CUTOFF
BCUT	VP	BLUE CUTOFF
CROM	VP	CHROMA TRAP
SPIX	VP	PICTURE
SHUE	VP	HUE
SCOL	VP	COLOR
SBRT	VP	BRIGHT
RGBP	VP	RGB PICTURE
MPX	AP	ATT
FILO	AP	I1
DEEM	AP	I2
STEV	AP	OSC1
SAPV	AP	OSC2
PILO	AP	PILOT
SEP	AP	WIDE BAND
VD	AP	SPECTRAL
LVOL	AP	VOLUME-L
RVOL	AP	VOLUME-R
SHAR	VP	SHARPNESS
DISP		③PWM OUTPUT

## 4. METHOD OF CANCELLATION FROM SERVICE MODE

Set to standby condition (Press **POWER** button on the commander). In the next place, press **POWER** button again, hereupon it becomes TV mode.

## 5. METHOD OF WRITE FOR MEMORY

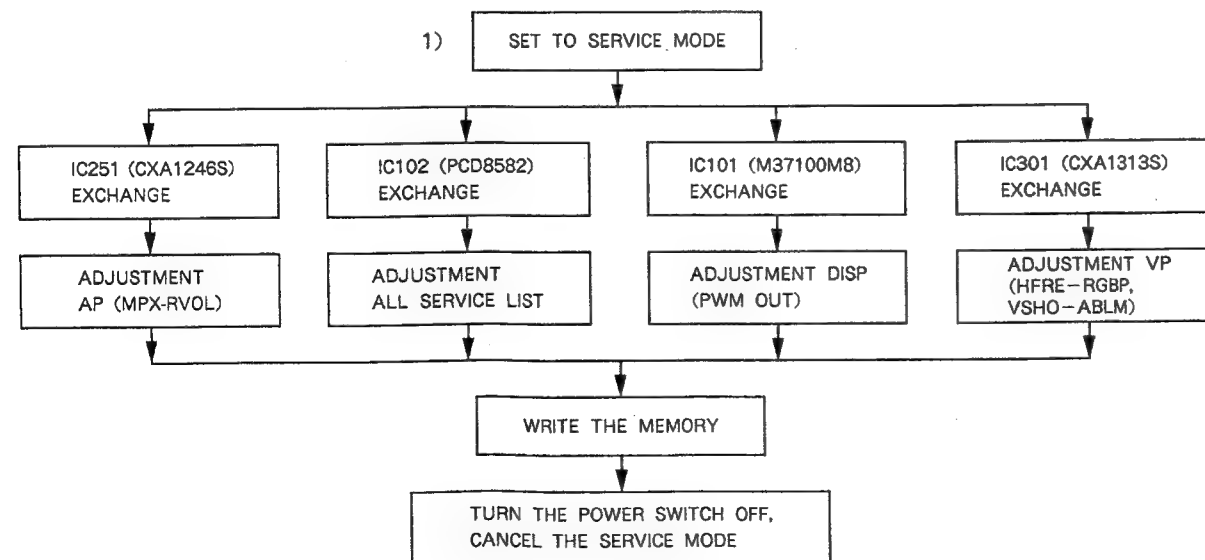
- 1) Set to service mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTING** button to indicate WRITE (RED) on screen.
- 4) Press **ENTER** button to write for memory. (At this time, WRITE (YELLOW) is indicated on screen.)



## 6. MEMORY WRITE CONFIRMATION METHOD

- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to service mode.
- 3) Call the adjusted items again, confirm they were adjusted.

## 7. ADJUSTMENT WHEN REPLACING IC



NOTE: If service mode is canceled before write for memory, the adjustment data is not recorded.  
Please write for memory certainly after adjustment.

- 2) The following first setting should always be performed when replacing the IC102 (PCD8582).

ITEM		NAME REGISTER	ADJUSTMENT
VSMO	VP	VSMO	0
AFC	VP	AFC 1.0	0
REF	VP	REF 1.0	2
ROFF	VP	OFF NR	1
G OFF	VP	OFF NG	1
BOFF	VP	OFF NB	1
ABLM	VP	ABLM	1
TEST	AP	T	0
DRGB	VP	DRGB	1

\* Please write the memory each items by **MUTING** → **ENTER**.

## 5-2. CIRCUIT ADJUSTMENTS

## RF AGC ADJUSTMENT (IF BLOCK VR)

- 1) Receive a color-bar signal.
- 2) Adjust AGC VR of IF201 so that snow noise and cross-modulation disappear from the picture.
- 3) Confirm them at every channel.

## H. FREQUENCY ADJUSTMENT

- 1) Set to service mode.
- 2) Receive a color-bar signal.
- 3) Connect a frequency counter to base of Q502.
- 4) Call the item of AFC, set to 3 level (free run).
- 5) Select HFRE with **1** and **4**.
- 6) Adjust **3** and **6** to the  $15,735 \pm 60$  Hz level.
- 7) Call the item of AFC again, adjust the level "00".
- 8) Write the memory by **MUTING** → **ENTER**.

## V. FREQUENCY ADJUSTMENT

- 1) Set to service mode.
- 2) Receive an off-air signal (VIDEO IN → no signal).
- 3) Connect the frequency counter across pin ⑥ of A-81 connector and ground.
- 4) Select VFRE with **1** and **4**.
- 5) Adjust **3** and **6** to  $55 \pm 1$  Hz.
- 6) Write the memory by **MUTING** → **ENTER**.

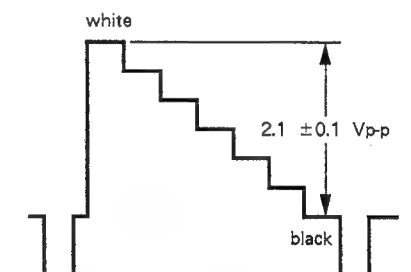
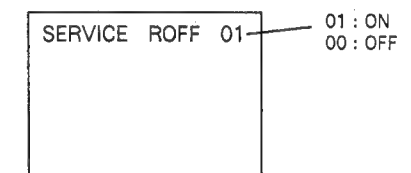
## CHROMA TRAP ADJUSTMENT

- 1) Set to service mode.
- 2) Receive a color-bar signal.

- 3) Select NOTCH (VIDEO condition), turn "ON" by **+**. And then set the COLOR VR to maximum setting and SHARPNESS control to center.
- 4) Connect an oscilloscope to TP47R (R OUT) on C board.
- 5) Select C ROM with **1** and **4**, and then adjust 3.58 MHz (CHROMA) ingredient is minimum with **3** and **6**.
- 6) Write the memory by **MUTING** → **ENTER**.
- 7) Set NOTCH to OFF, and make normal condition with **VIDEO** → **RESET**.

## SUB CONTRAST ADJUSTMENT

- 1) Set to service mode.
- 2) Receive a color-bar signal. (75 IRE)
- 3) PICTURE ..... MAX  
COLOR ..... MIN  
R OFF ..... ON  
G OFF ..... OFF  
B OFF ..... OFF  
Press **VIDEO** → **-** (L) (It becomes minimum).  
Select **3** (ON) and **6** (OFF) with **1** and **4**.

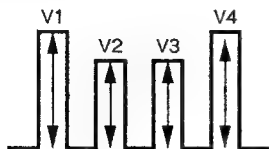


- 4) Connect an oscilloscope to TP47R (R OUT) on C board.
- 5) Adjust **3** and **6** to the  $2.1 \pm 0.1$  Vp-p level by select SPIX with **1** and **4**.
- 6) Write the memory by **MUTING** → **ENTER**.
- 7) Return normal after adjustment.  
G OFF ..... ON  
B OFF ..... ON  
COLOR ..... CENTER  
PICTURE ..... 80%

## SUB HUE, SUB COLOR ADJUSTMENT

- 1) Receive a color-bar signal.
- 2) Press **VIDEO** → **RESET** to normal.

- 3) Set to service mode.
- 4) Connect an oscilloscope TP47B (B OUT) on C board.
- 5) Adjust [3] and [4] to become  $V1=V4$  and  $V2=V3$  by select to SHUE and SCOL with [1] and [4].



- 6) Write for memory by [MUTING] → [ENTER].

#### V. SIZE ADJUSTMENT

- 1) Set to service mode.
- 2) Receive a cross-hatch signal.
- 3) Adjust [3] and [6] to become best vertical size by select to VSIZ with [1] and [4].
- 4) Write for memory by [MUTING] → [ENTER].

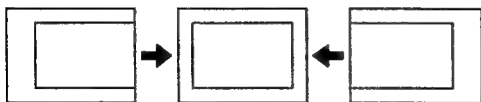
#### H. SIZE ADJUSTMENT

- 1) Receive a cross-hatch signal.
- 2) Press [VIDEO] → [RESET] to normal.
- 3) Set to service mode.
- 4) Adjust [3] and [6] to become best horizontal size by select to HSIZ with [1] and [4].
- 5) Write for memory by [MUTING] → [ENTER].

#### H. CENTER ADJUSTMENT

**Note :** Act this adjustment after H. FREQ adjustment.

- 1) Receive a cross-hatch signal.
- 2) Press [VIDEO] → [RESET] to normal.
- 3) Set to service mode.
- 4) Select to HPOS with [1] and [4].
- 5) Adjust [3] and [6] to become best picture.

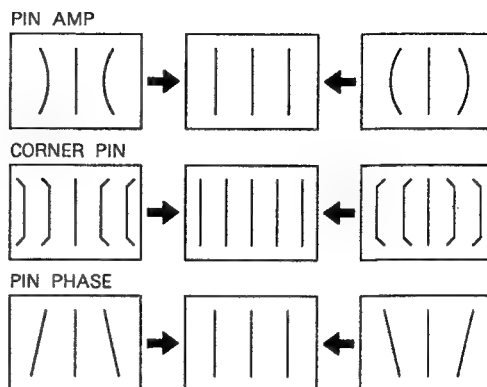


- 6) Write for memory by [MUTING] → [ENTER].

#### PIN AMP, CORNER PIN AND PIN PHASE ADJUSTMENT

- 1) Receive a cross-hatch signal.
- 2) Press [VIDEO] → [RESET] to normal.
- 3) Set to service mode.
- 4) Select to PAMP, CPIN and PPHA with [1] and [4].

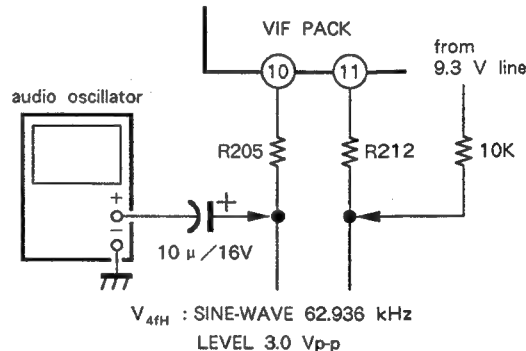
- 5) Adjust [3] and [6] to become best picture.



- 6) Write for memory by [MUTING] → [ENTER].

#### FILTER ADJUSTMENT

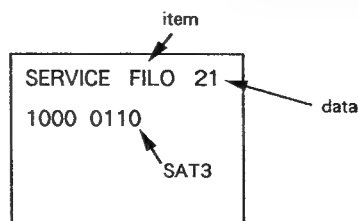
- 1) Set to service mode.
- 2) Select to TEST with [1] and [4], set the data to "1". Then select MPX and make data to "08".
- 3) Connect an audio oscillator to R205 via chemical capacitor (10  $\mu$ F/16 V) and apply frequency of  $V_{4fH}$ . And then, apply DC voltage to R212 via resistor of 10 k $\Omega$  from 9.3 V line.



- 4) make the data "00" by select to FILO with [1] and [4]. And then, send up the data gradually with press of [6], set the data to D1 before SAT3 changes 1 from 0.
- 5) Send up the data gradually, set the data to D2 when SAT3 changes 0 from 1.

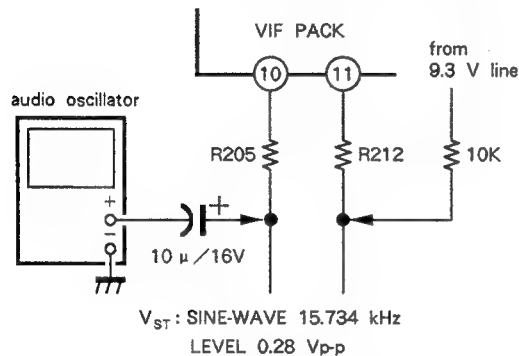
- 6) Adjust the data of FILO to  $\frac{D1 + D2}{2}$

- 7) Write for memory by [MUTING] → [ENTER].

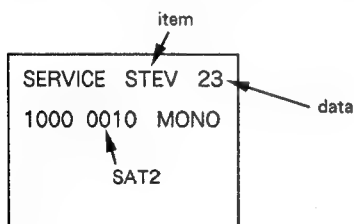


#### ST VCO ADJUSTMENT

- 1) Set to service mode.
- 2) Select to TEST with [1] and [4], set the data to "1". And then press [MTS] to MONO.
- 3) Select to MPX, set the data to "08".
- 4) Connect an audio oscillator to R205 via chemical capacitor (10  $\mu$ F/16 V) and apply frequency of V<sub>ST</sub>. And then, apply DC voltage to R212 via register of 10 k $\Omega$  from 9.3 V line.



- 5) Select STEV with [1] and [4], set the data to "00" with [6]. And then, send up the data gradually, set the data D1 before SAT2 changes 0 from 1.
- 6) Send up the data gradually, set the data to D2 when SAT2 changes 1 from 0.
- 7) Adjust the data of STEV to  $\frac{D1 + D2}{2}$
- 8) Write for memory by [MUTING] → [ENTER].



#### MPX IN LEVEL ADJUSTMENT

- 1) Set to service mode.
- 2) Select to TEST with [1] and [4], set the data to "0" with [6]. And then press [MTS] to MONO.
- 3) Select to MPX with [1] and [4], set the data to "08" with [3] and [6].
- 4) Write for memory by [MUTING] → [ENTER].

#### PILOT CANCEL ADJUSTMENT

- 1) Set to service mode.
- 2) Select to TEST with [1] and [4], set the data to "0" with [6]. And then press [MTS] to MAIN.
- 3) Select to PILO with [1] and [4], set the data to "08" with [3] and [6].
- 4) Write for memory by [MUTING] → [ENTER].

#### SAP VCO f<sub>0</sub> ADJUSTMENT

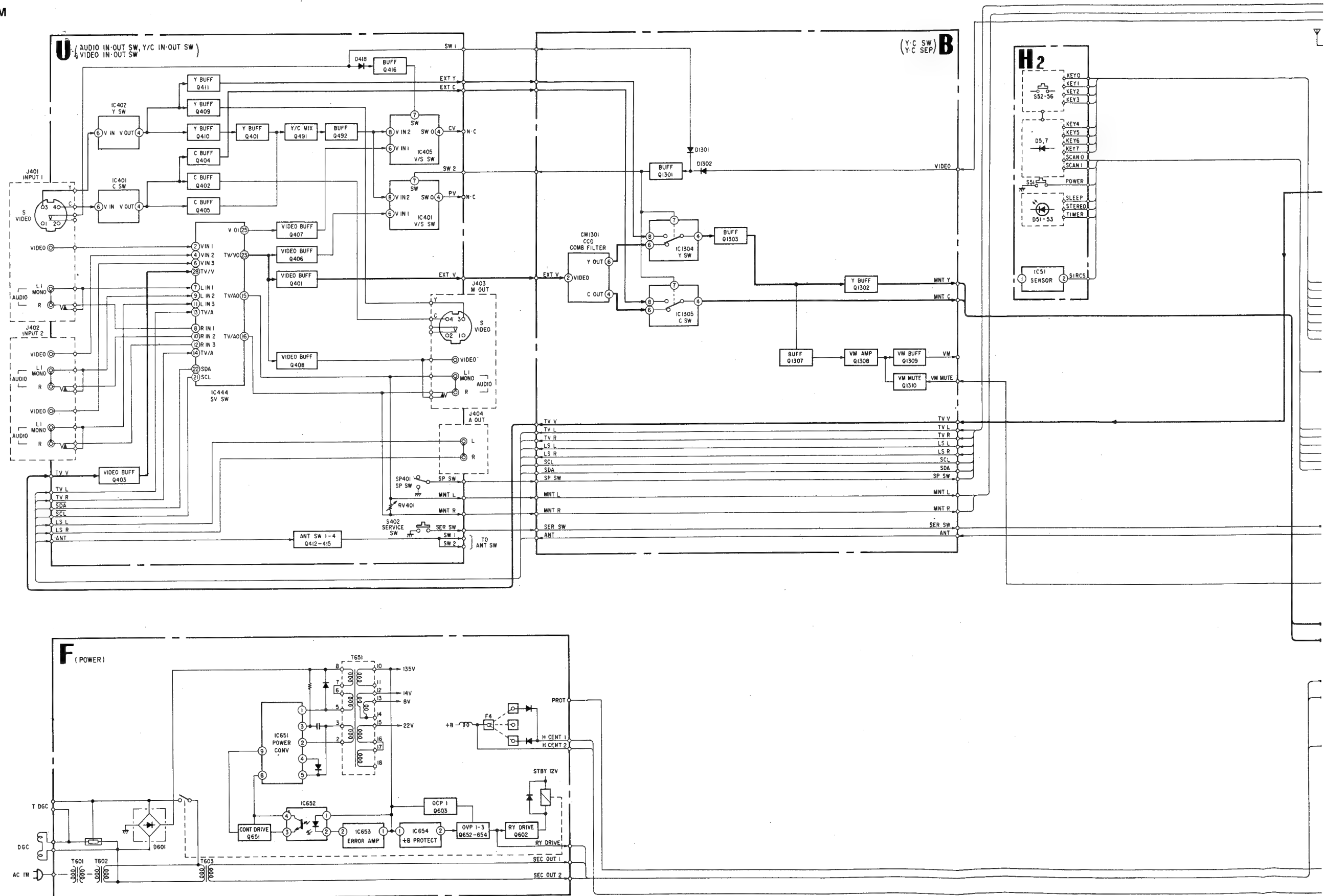
- 1) Set to service mode.
- 2) Receive a stereo broadcast including SAP.
- 3) Select to TEST with [1] and [4], set to the data to "0". And then, press [MTS] to MAIN.
- 4) Connect a digital multimeter to pin ① of A-23 connector and this voltage agree upon V1.
- 5) Press [MTS] to SAP and this voltage agree upon V2.
- 6) Select to SAPV with [1] and [4], adjust [3] and [6] to become V2=V1  $\pm$  0.03 V DC.
- 7) Write for memory by [MUTING] → [ENTER].

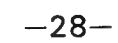
#### SEPARATION ADJUSTMENT

- 1) Set to service mode.
- 2) Press [MTS] to MAIN, and receive a monaural broadcast.  
In the next place, receive a stereo broadcast.
- 3) Select to SEP and VD with [1] and [4], adjust [3] and [6] to become to obtain stereo effects.

SECTION 6  
DIAGRAMS

## 6-1. BLOCK DIAGRAM

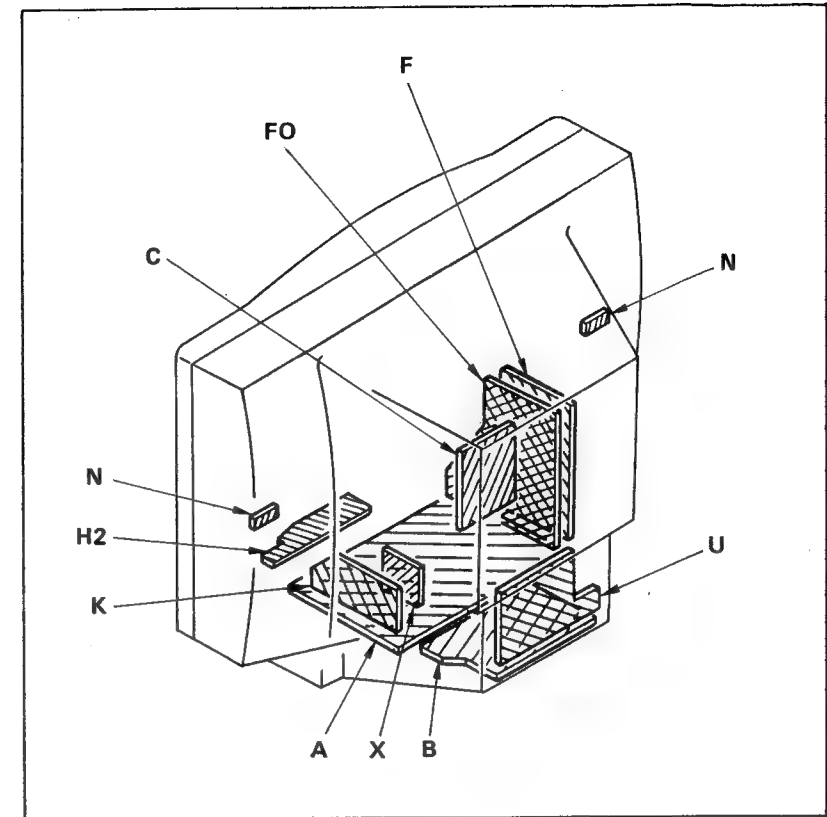




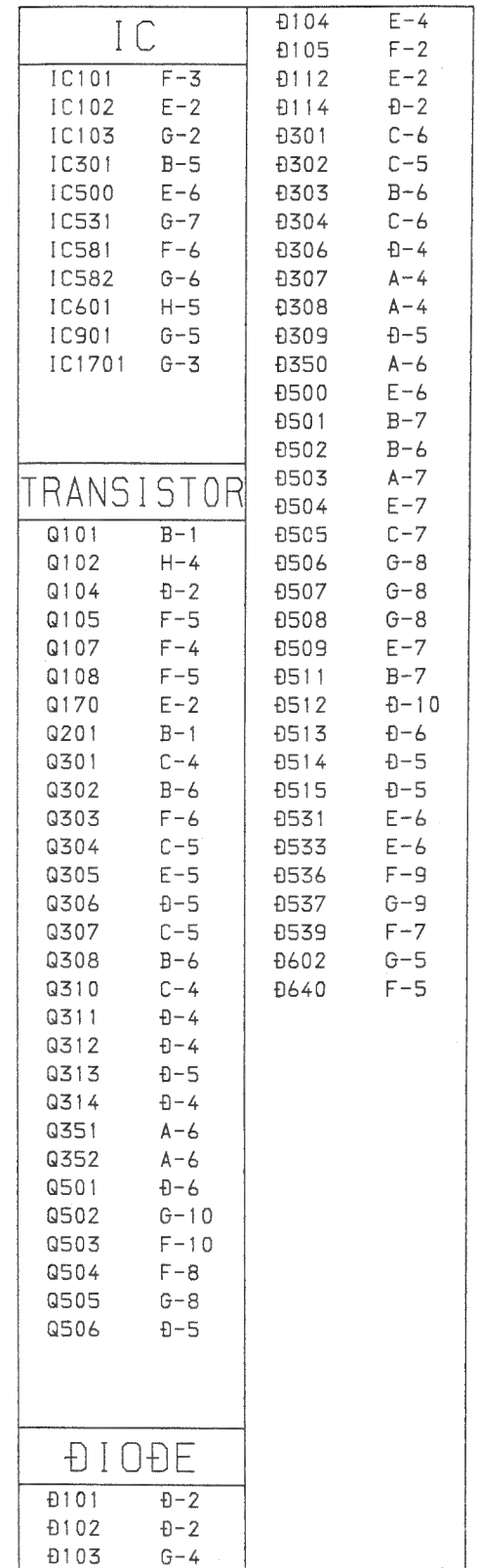


# MEMO

## 6-2. CIRCUIT BOARDS LOCATION



## A BOARD LOCATION



# 6-4. SCHEMATIC DIAGRAMS

## Note :

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.
- pF :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm  
Rating electrical power 1/4W

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved.
- When replacing the part in below table be sure to perform the related adjustment.

Part replaced ()	Adjustment ()
IC301, PM501, R549, R564	R549 (HOLD-DOWN)
IC301, IC653, PM501, D539, C556, R556, R564, R567, R663, T500	R567 (HOLD-DOWN)

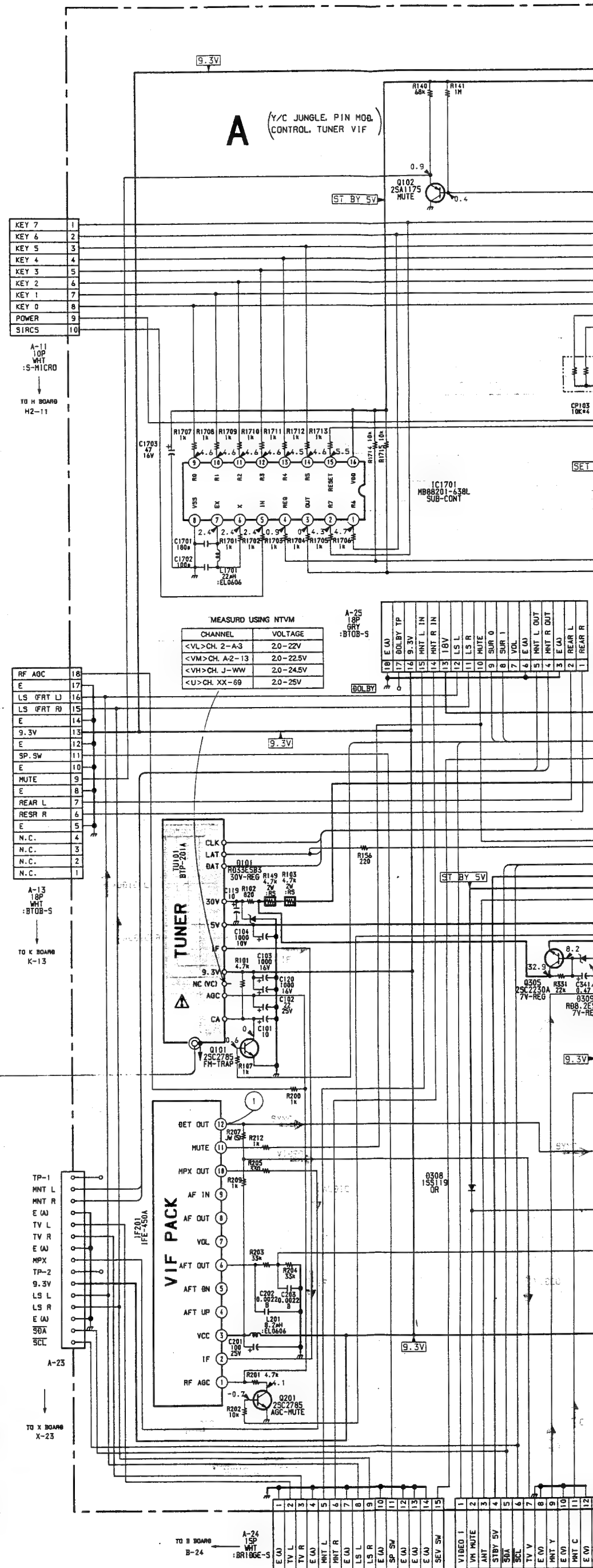
- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10 M $\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerance.
- : B+ bus.
- : B- bus.
- : signal path.

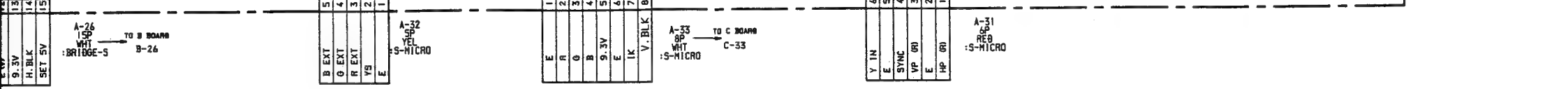
## Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

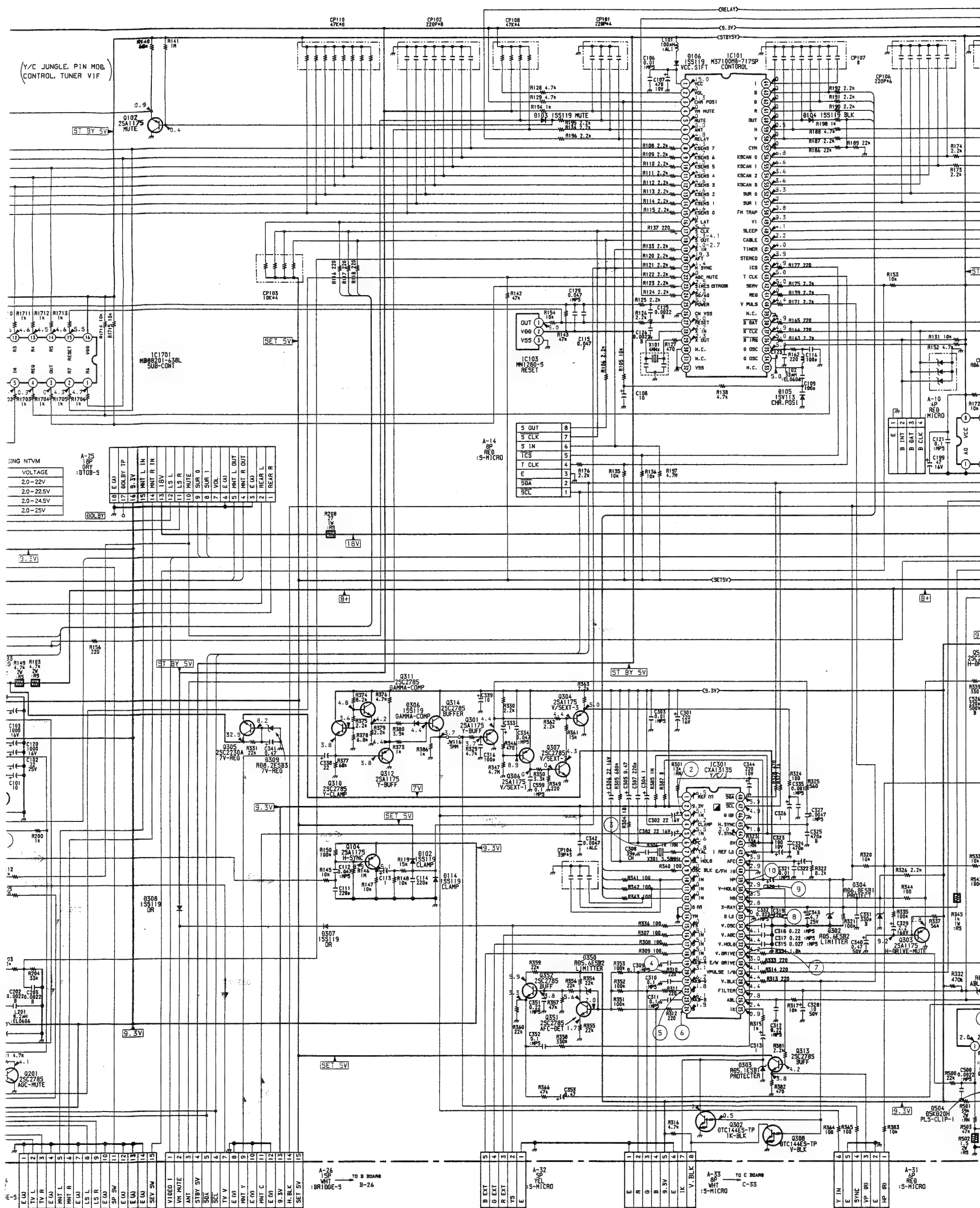
Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

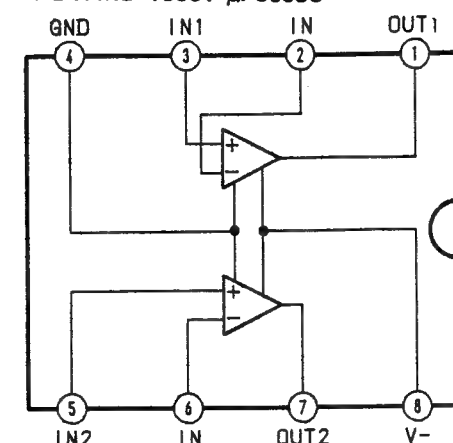
Note: Les composants identifiés par un trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.







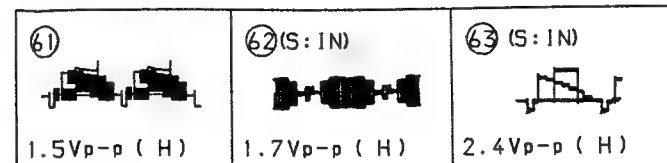




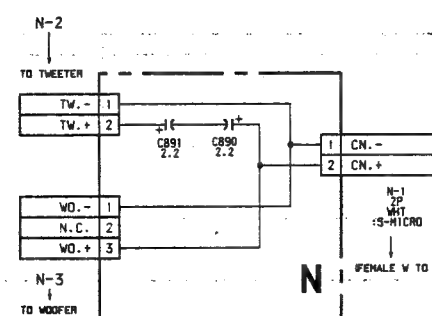
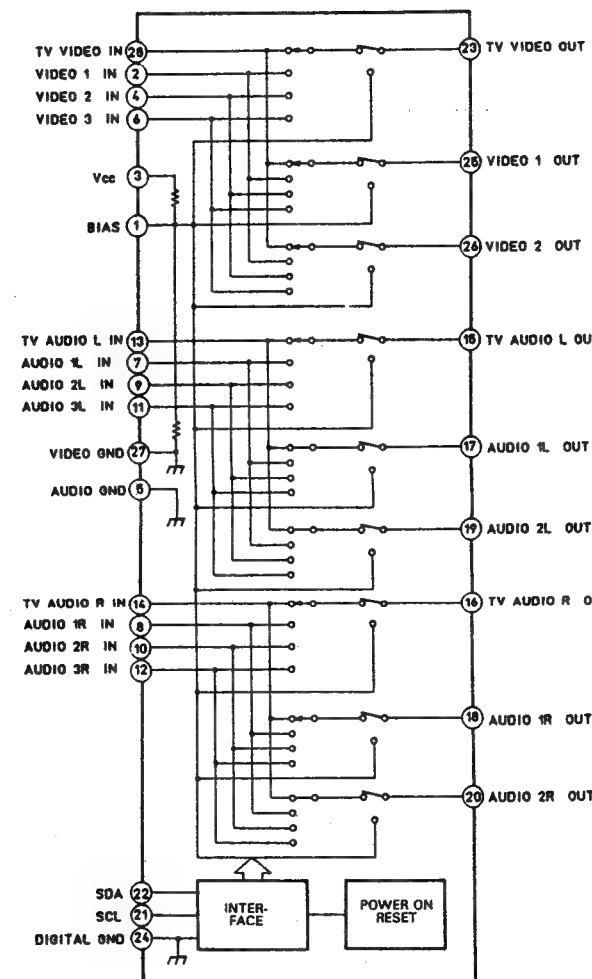




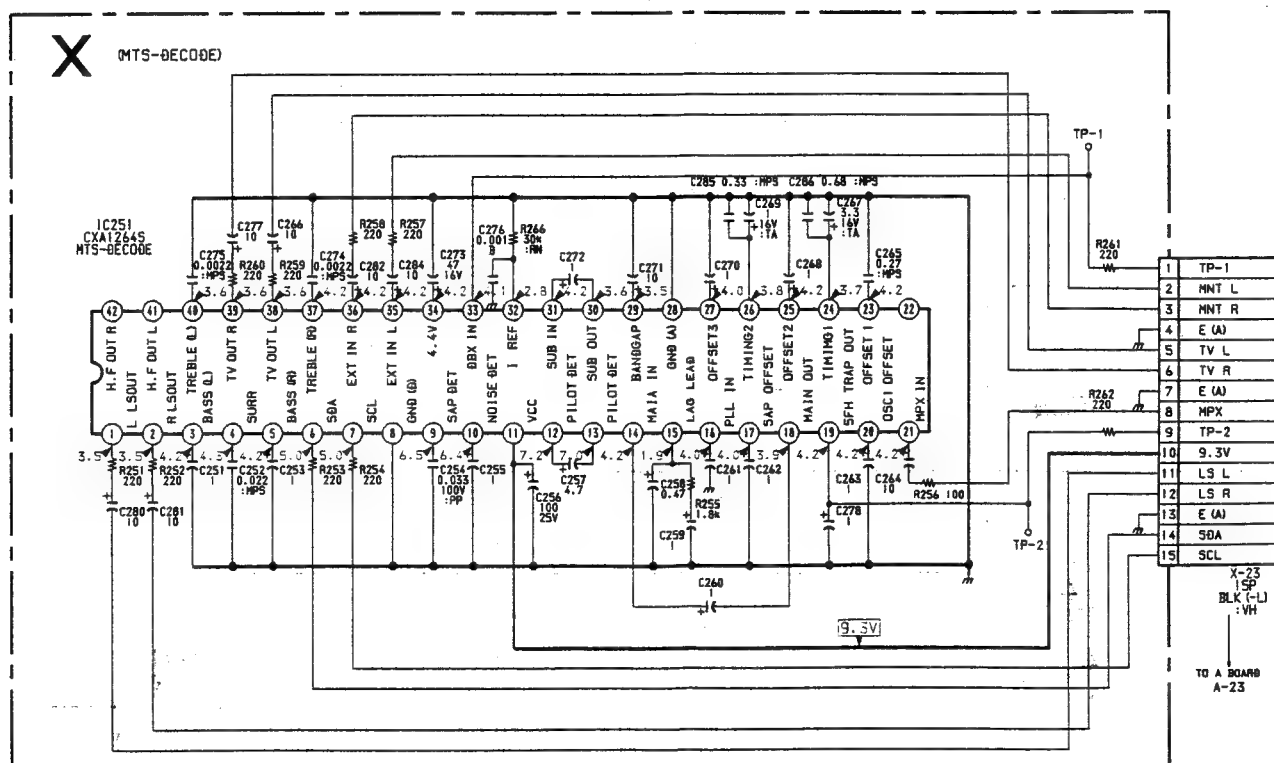




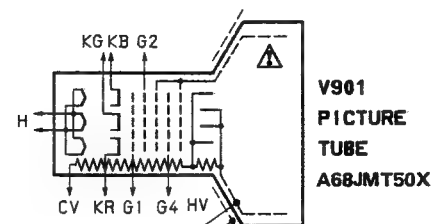
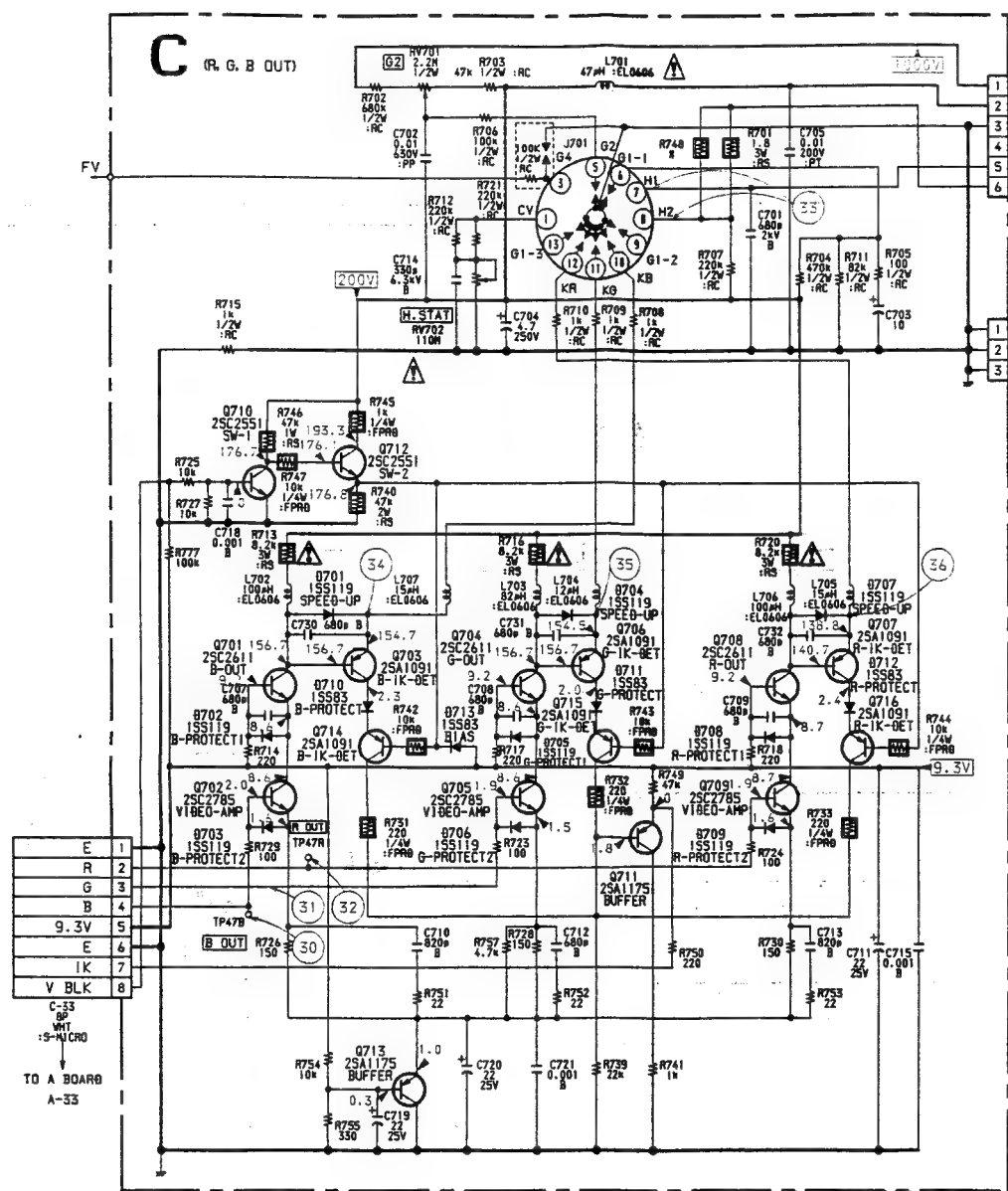
U BOARD IC444 CXA1114P



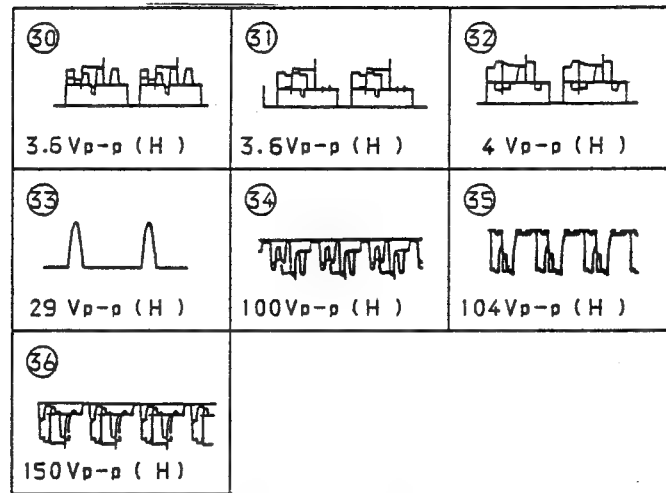
**CAUTION**  
CONFIRM THAT THE VOLTAGE OF B+ MAIN  
VOLTAGE IS WITHIN THE STANDARD VALUE  
WHEN REPLACING IC653 AND R663.



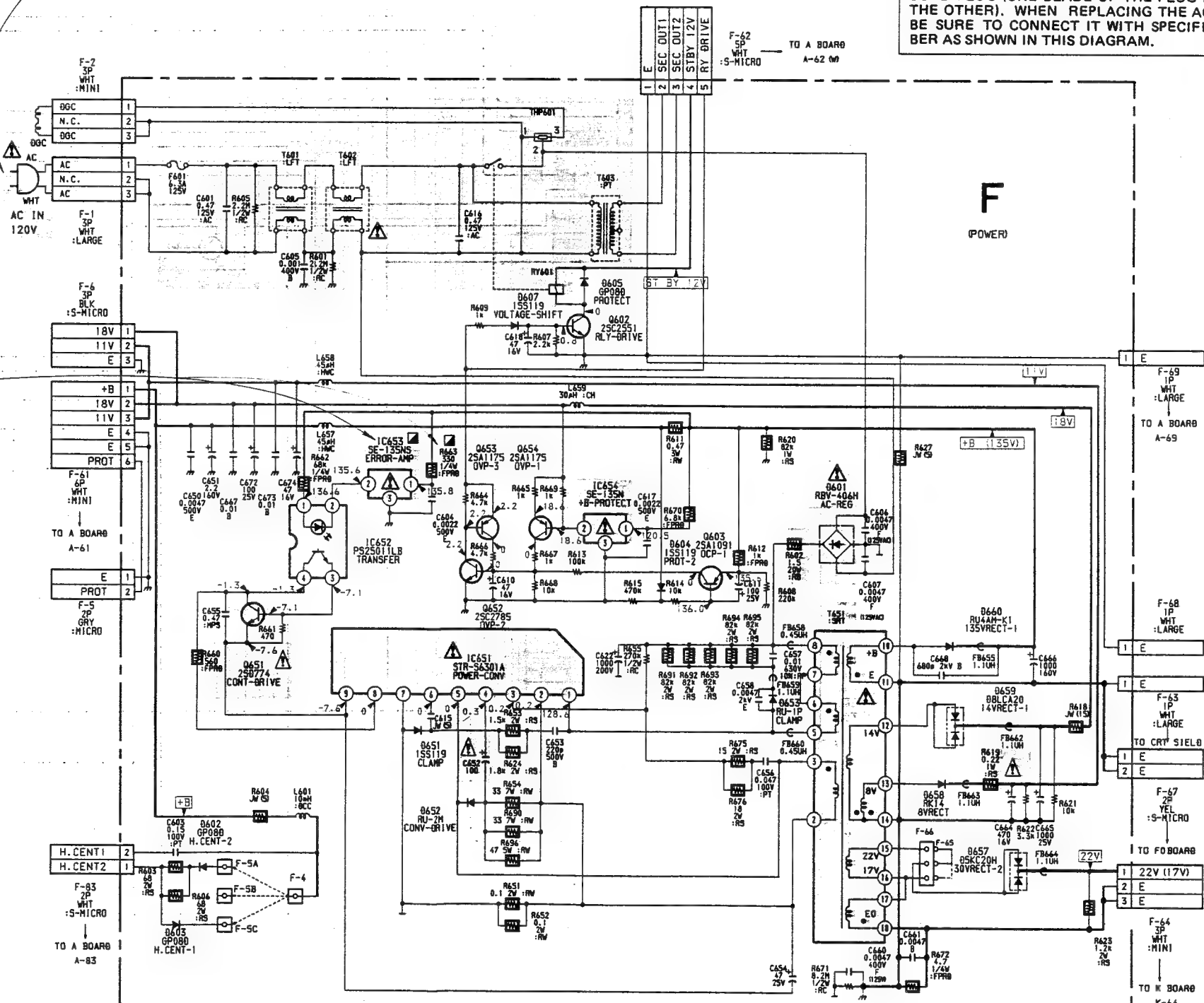
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P



**C BOARD WAVEFORM**



CAUTION  
THIS SET IS EQUIPPED WITH A POLARIZED AC POWER CORD PLUG (ONE BLADE OF THE PLUG IS WIDER THAN THE OTHER). WHEN REPLACING THE AC POWER CORD, BE SURE TO CONNECT IT WITH SPECIFIED PART NUMBER AS SHOWN IN THIS DIAGRAM.

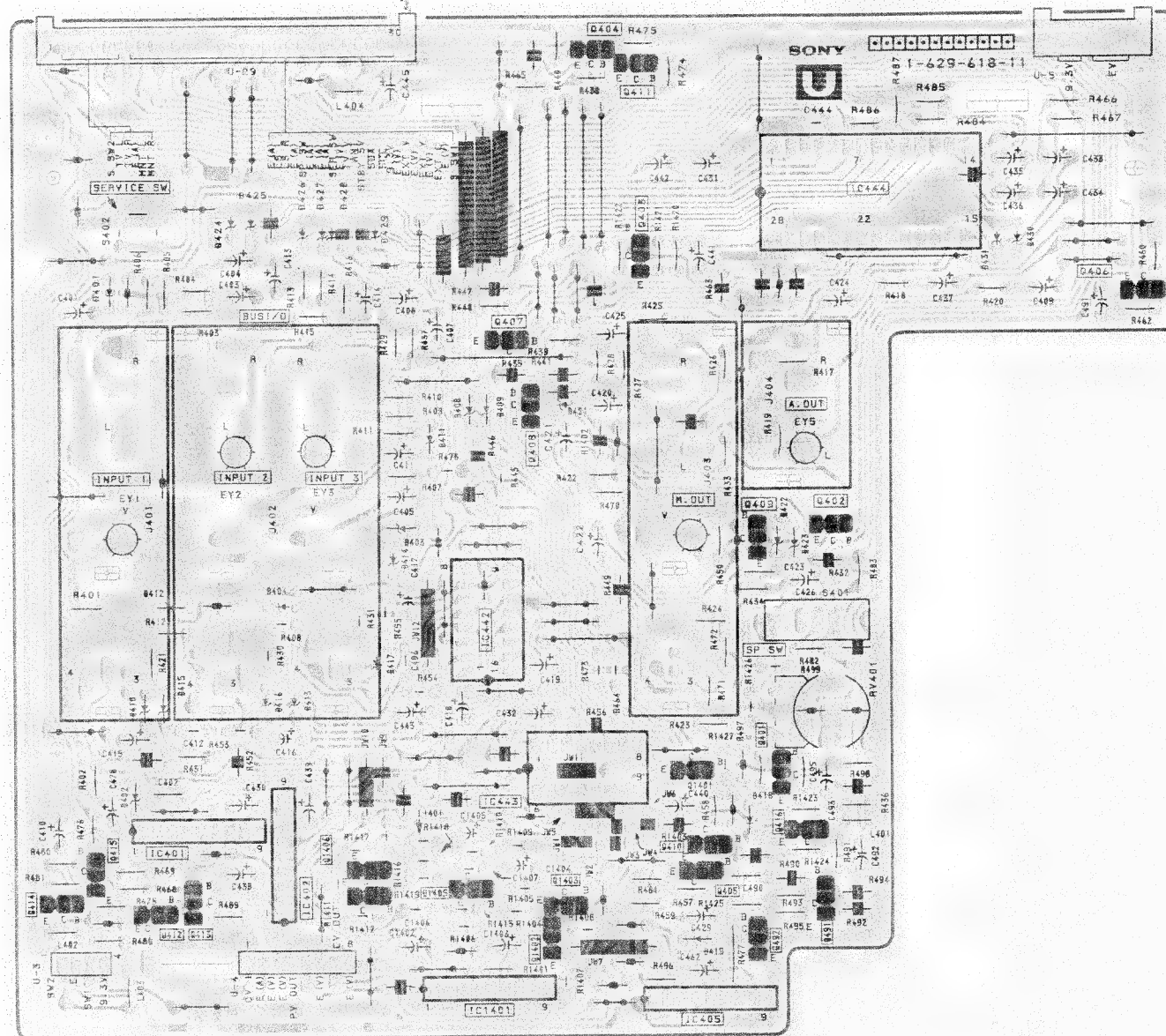


**U** [ VIDEO SW, AUDIO SW,  
Y/C SW, LOGIC ]

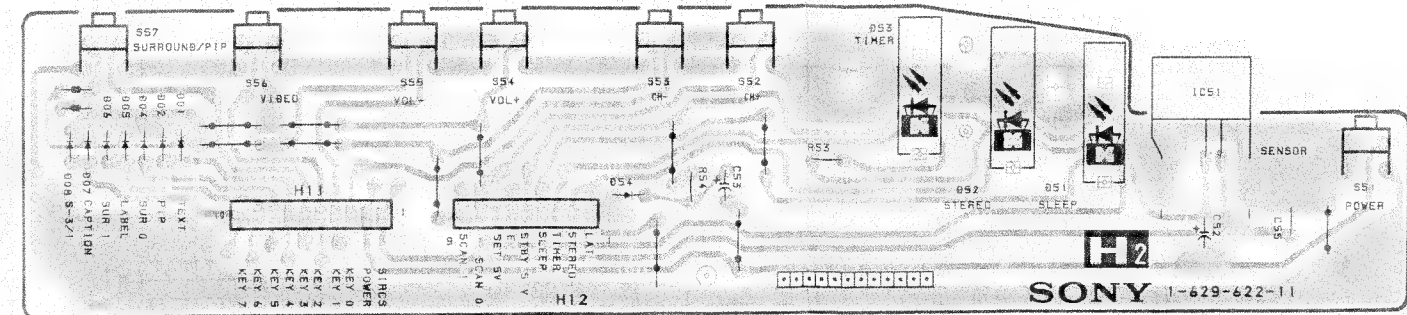
**H<sub>2</sub>** [REMOCON]  
[RECEIVER]

N

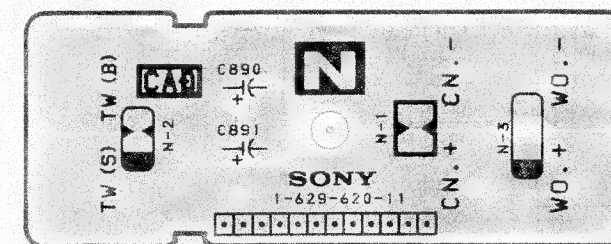
– U Board –



— H2 Board —



– N Board –



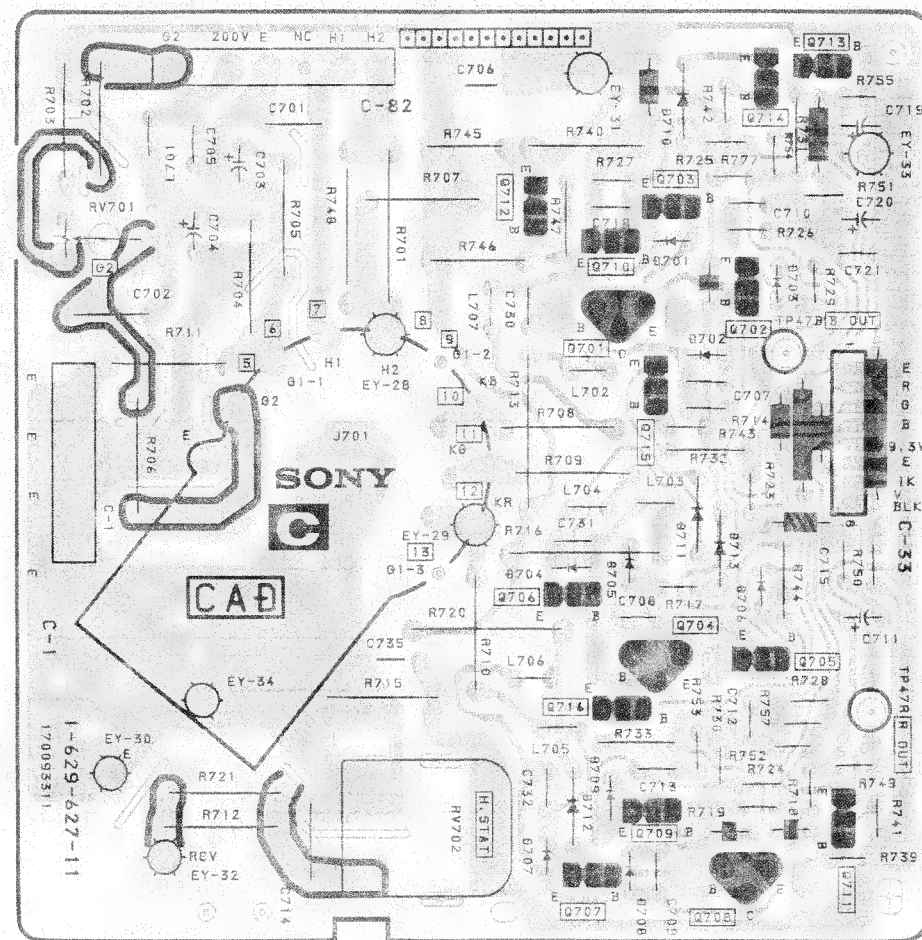


[POWER]

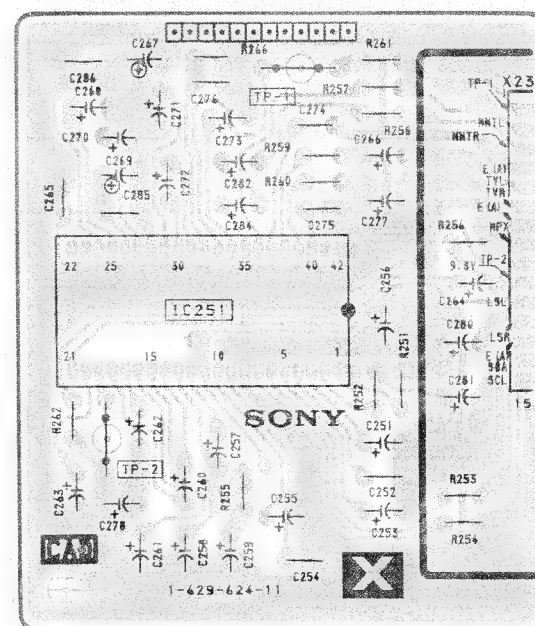
[R·G·B OUT]

[MTS-DECODE]

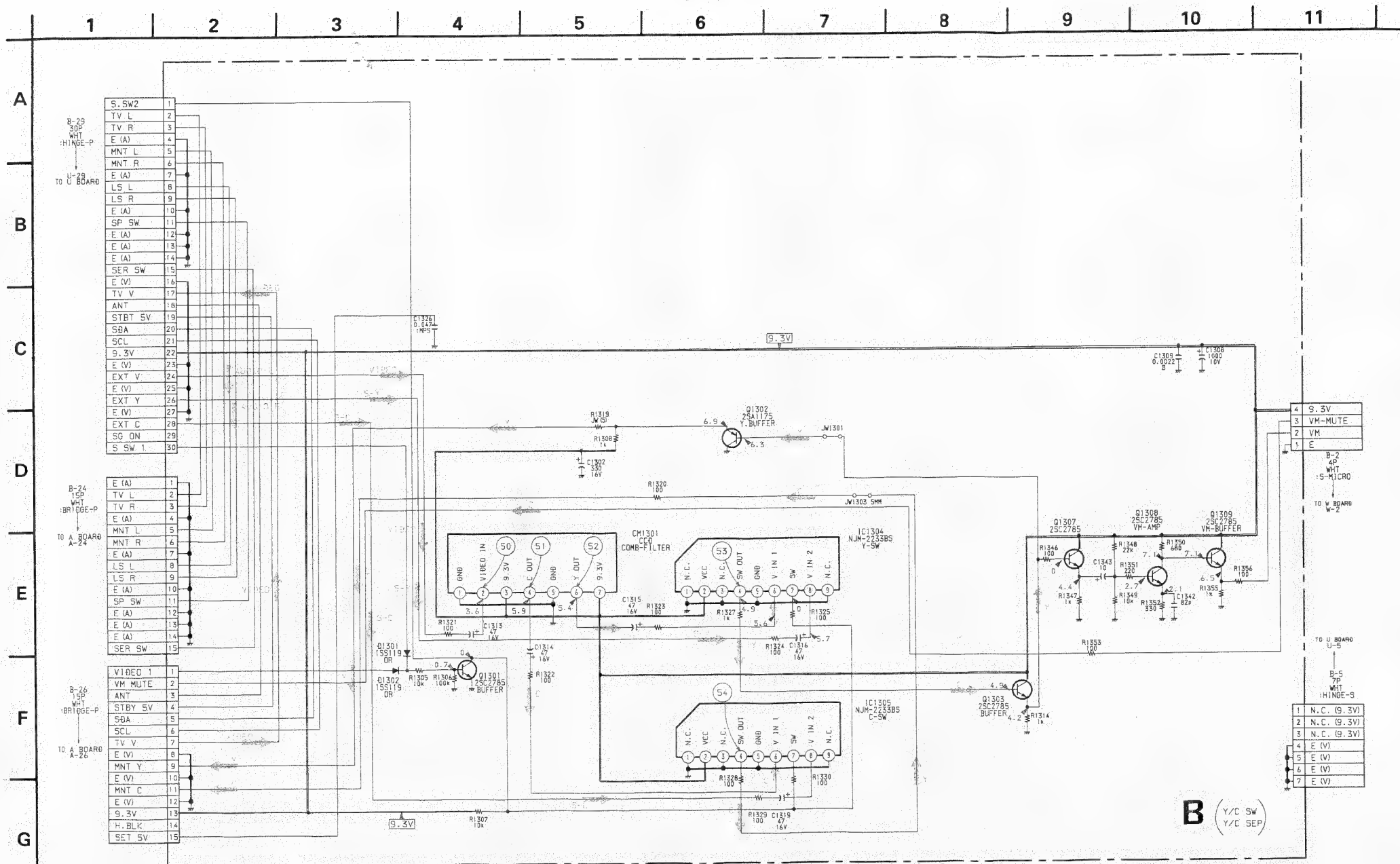
— C Board —



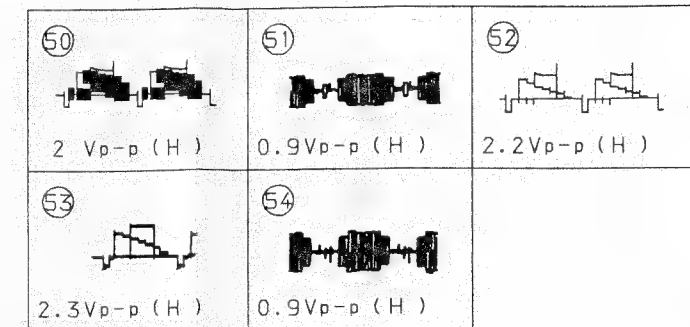
— X Board —



The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

**B** Y/C CONT, D/A CONV  
Y/C SW

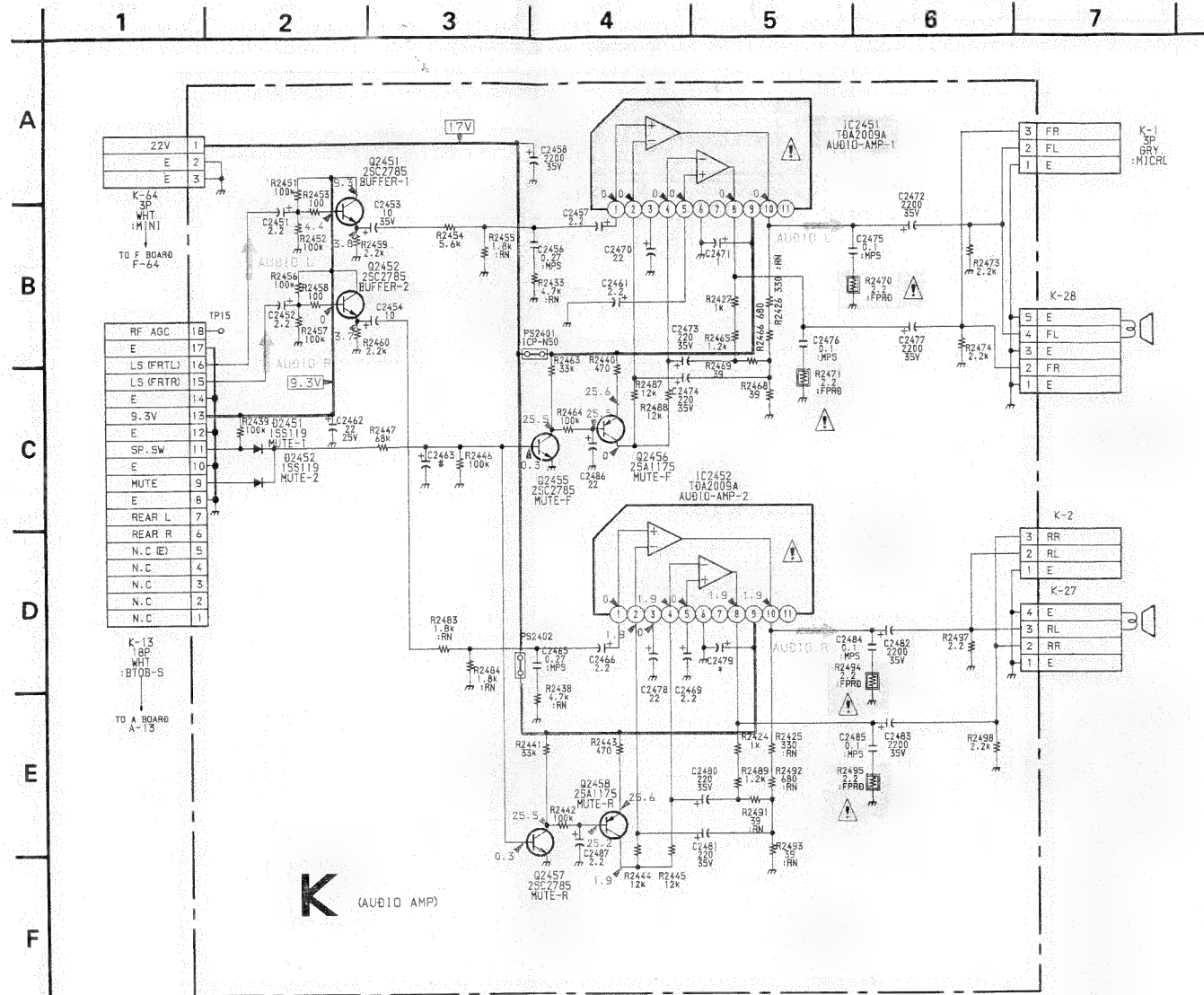
B BOARD WAVEFORM



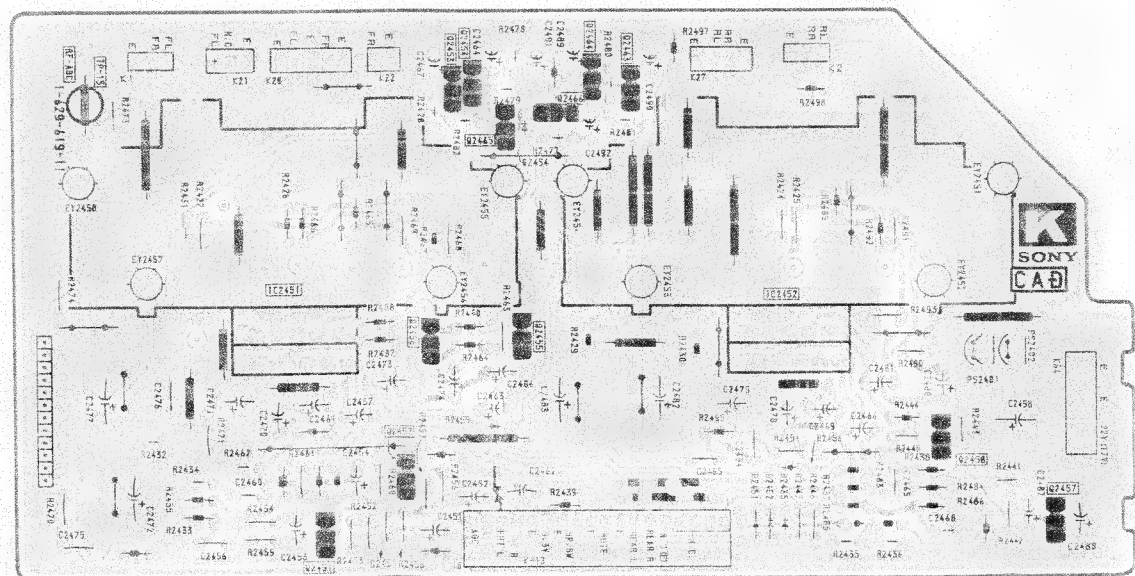
KV-27HSR10  
RM-763

KV-27HSR10  
RM-763

**K** [AUDIO AMP]

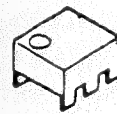


— K Board —

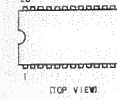


## 6-5. SEMICONDUCTORS

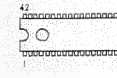
BX-1398



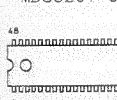
CXA1114P



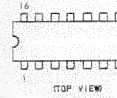
CXA1264S



CXA1313S



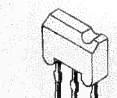
CXA1315P



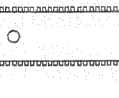
CXA1334S



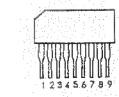
MN1280-S



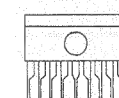
M-37100M8



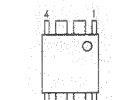
NJM-2233BS



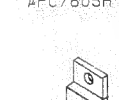
NJM-2245S



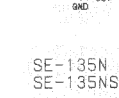
PCD8582



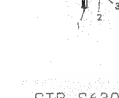
RC7812FA



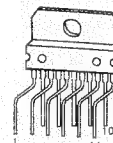
SE-135N



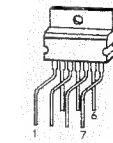
STR-S6301A



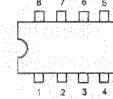
TDA2009A



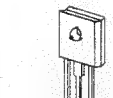
TDA817Z



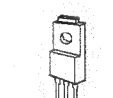
μPC393C



μPC78N05H



μPC7893HF



2SA1091



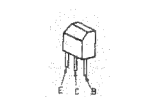
2SC2551



2SA1175  
2SC2785  
2SC2785-HFE



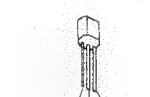
2SD774



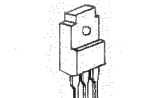
2SC2611



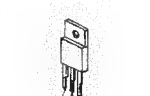
2SC2230A



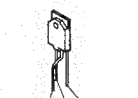
2SC3298B-Y



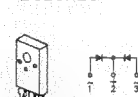
2SD1406



2SD1941-06



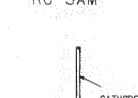
DSK40H



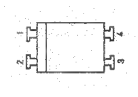
EL1Z



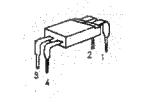
ERC25-06S  
ERC81-004  
RU-3AM



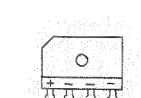
PC817-C



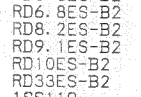
PS2501-1LB



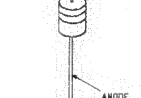
RBV-406H-01



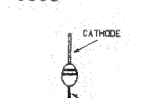
RD4.7ES-B2



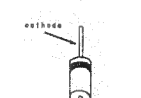
RD5.6ES-B2



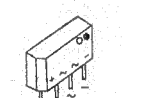
RG3G-5007L



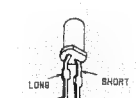
RU-4DS



S1VB40



TLR124



LONG



SHORT



ANODE





## SECTION 7

### EXPLODED VIEWS

## NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

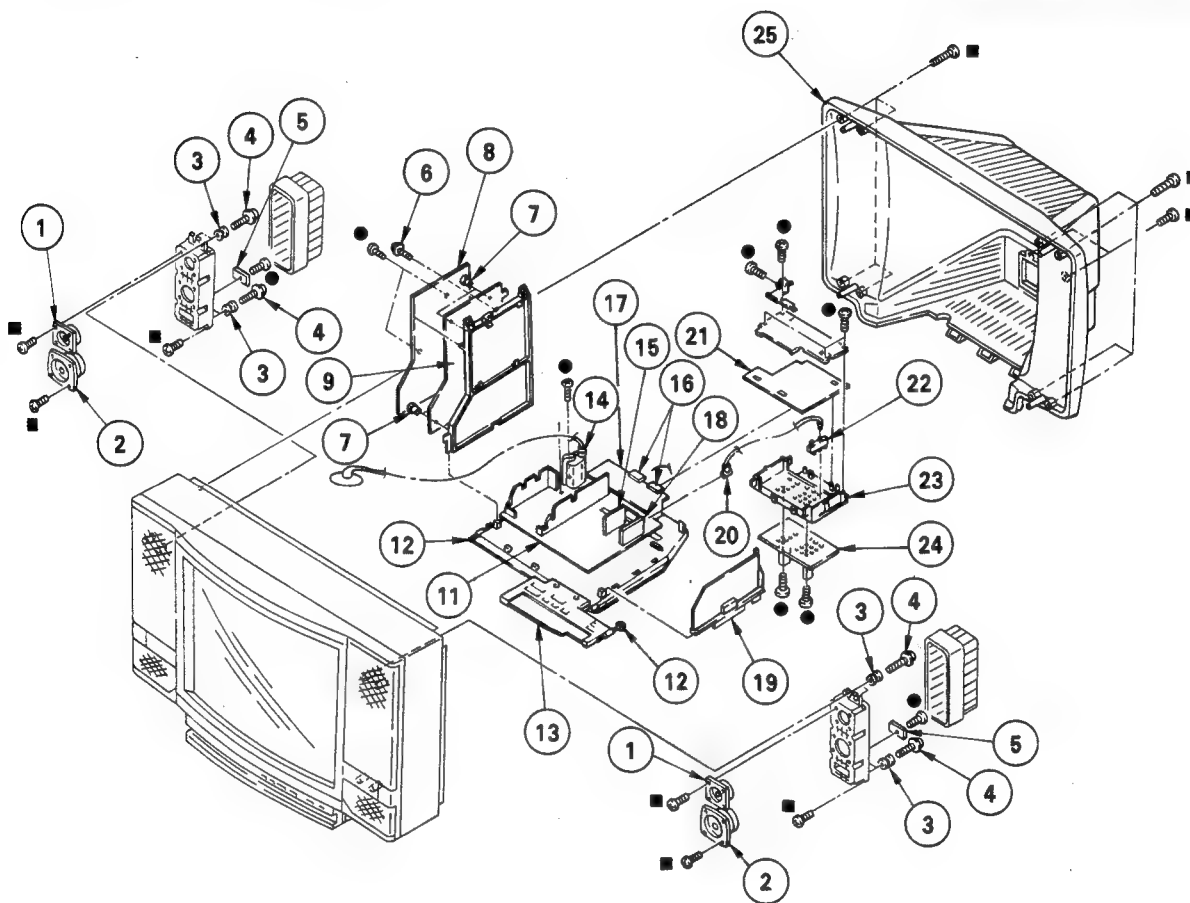
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## 7-1. CHASSIS

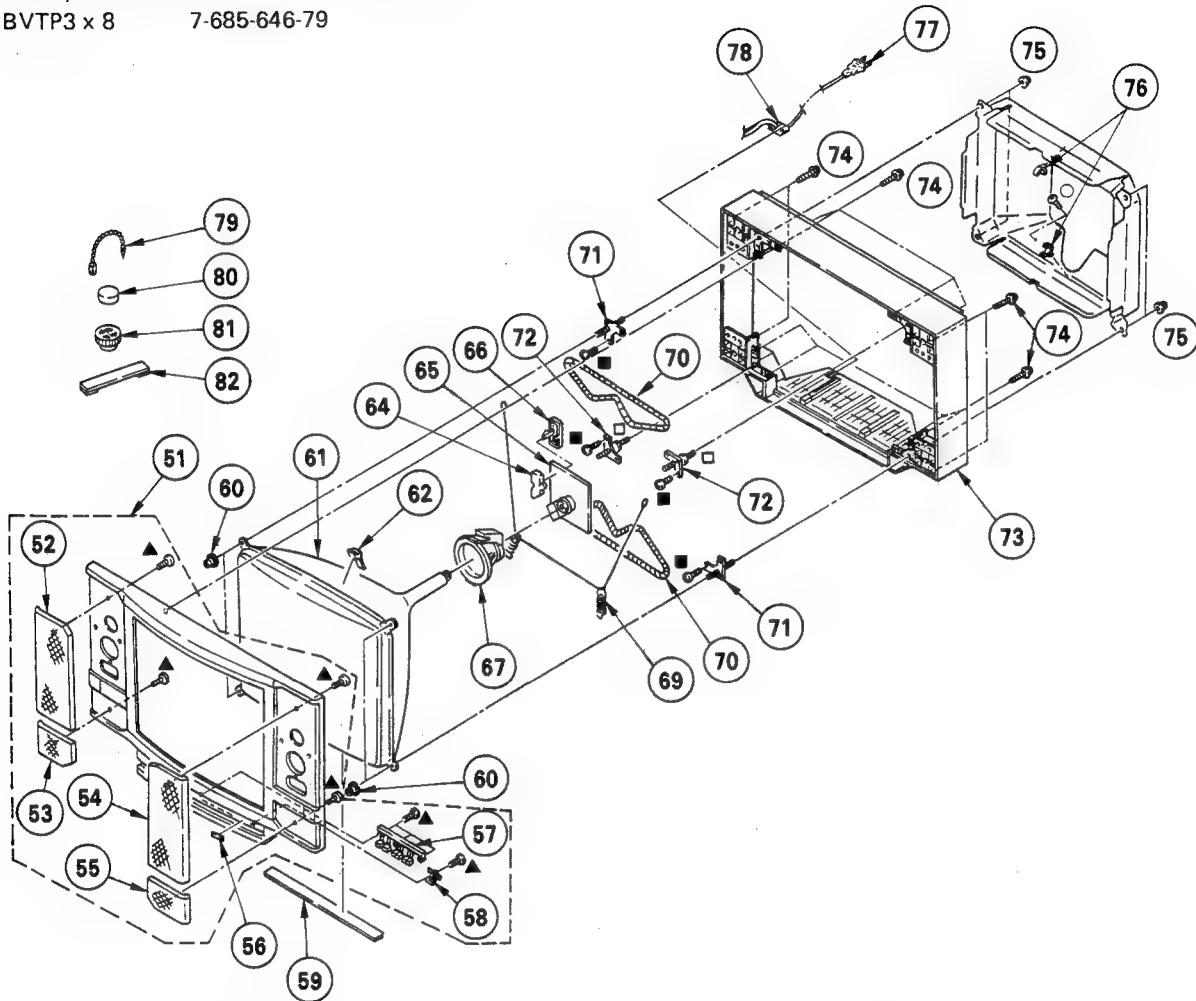
- : BVTP3 x 12      7-685-648-79  
■: BVTP4 x 16      7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	1-544-095-11	SPEAKER		14	▲ 1-439-455-11	TRANSFORMER ASSY, FLYBACK (NX-2300)	
2	1-503-917-11	SPEAKER		15	*1-629-624-11	X BOARD	
3	4-374-745-11	CUSHION (A)		16	*1-568-507-11	CONNECTOR, BRIDGE 15P	
4	4-384-096-01	SCREW (4X16), TAPPING, +P		17	*A-1135-560-A	B BOARD, COMPLETE	
5	*1-629-620-11	N BOARD		18	▲ 1-463-771-11	TUNER, ET (BTP-201A)	
6	4-388-477-01	SCREW (3X16), TAPPING		19	*A-1385-052-A	K BOARD, COMPLETE	
7	3-531-576-31	RIVET (DIA. 3), NYLON		20	*1-556-945-21	CABLE, P-P	
8	*A-1245-453-A	F BOARD, COMPLETE		21	*A-1394-173-A	U BOARD, COMPLETE	
9	*1-629-628-11	FO BOARD		22	▲ 1-417-177-11	SELECTOR, ANTENNA (AS-1)	
11	*A-1296-567-A	A BOARD, COMPLETE		23	4-393-419-01	TERMINAL BOARD, ANTENNA	
12	4-319-520-11	SCREW, SPECIAL (+PW4X30)	15	24	4-393-414-01	LABEL, ANTENNA	
13	*1-629-622-11	H2 BOARD		25	4-393-629-01	COVER, REAR	

## 7-2. PICTURE TUBE

- : BVTP4 x 16      7-685-663-79
- ▲ : BVTP3 x 16      7-685-650-79
- : BOLT, HEXAGON 5 x 20      7-683-340-07
- : BVTP3 x 8      7-685-646-79



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4388-473-1	BEZEL ASSY	52-58	69	4-369-318-00	SPRING, TENSION	
52	X-4388-467-1	GRILLE (LEFT UPPER) ASSY		70 ▲	1-426-350-21	COIL, DEMAGNETIZATION	
53	X-4388-468-1	GRILLE (LEFT LOWER) ASSY		71	*4-379-197-01	BRACKET (H), PICTURE TUBE	
54	X-4388-465-1	GRILLE (RIGHT UPPER) ASSY		72	*4-376-989-01	BRACKET (E), PICTURE TUBE	
55	X-4388-466-1	GRILLE (RIGHT LOWER) ASSY		73	4-393-622-01	CABINET (BLACK)	
56	4-393-610-01	WINDOW, ORNAMENTAL			4-393-622-11	CABINET (GRAY) (USA ONLY)	
57	4-393-617-01	BUTTON, MULTI		74	4-319-520-11	SCREW, SPECIAL (+PW4X30)	
58	4-393-613-01	BUTTON, POWER		75	4-306-034-00	FLANGE NUT, (B) 5MM	
59	4-370-595-01	SHEET, BLOTTER		76	*4-371-629-01	STOPPER, WIRE	
60	4-376-980-01	NUT, SPECIAL, PICTURE TUBE		77 ▲	1-559-396-11	CORD, POWER	
61 ▲	8-737-753-05	PICTURE TUBE (A68JMT50X)		78 ▲	4-388-328-01	GROMMET, AC CORD	
62	3-703-961-01	SPACER, DY		79	4-308-870-00	CLIP, LEAD WIRE	
64	*4-379-167-01	COVER (MAIN), CV		80	1-452-032-00	MAGNET, DISK; 10MM φ	
65	*A-1330-949-A	C BOARD, COMPLETE		81	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ	
66	*4-379-160-01	COVER (REAR LID), CV		82	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	
67 ▲	1-451-275-11	DEFLECTION YOKE (Y28PFA)					

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



SECTION 8  
ELECTRICAL PARTS LIST**B** **F**

## NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

• Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

## RESISTORS

• All resistors are in ohms  
• F : nonflammable

When indicating parts by reference number, please include the board name.

## CAPACITORS

• MF :  $\mu$ F, PF :  $\mu$ F

## COILS

• MMH : mH, UH :  $\mu$ H

• The components identified by  $\boxtimes$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
*A-1135-560-A	B BOARD, COMPLETE	*****		R1320	1-249-405-11	CARBON 100 5% 1/4W	
*1-564-507-11	PLUG, CONNECTOR 4P			R1321	1-249-405-11	CARBON 100 5% 1/4W	
*1-566-942-11	CONNECTOR, HINGE (RECEPTACLE) 30P			R1322	1-249-405-11	CARBON 100 5% 1/4W	
*1-568-371-11	PIN, CONNECTOR (PC BOARD) 15P			R1323	1-249-405-11	CARBON 100 5% 1/4W	
*1-568-376-11	CONNECTOR, HINGE (RECEPTACLE) 7P			R1324	1-249-405-11	CARBON 100 5% 1/4W	
<CAPACITOR>				R1325	1-249-405-11	CARBON 100 5% 1/4W	
C1302	1-124-119-00	ELECT 330MF 20% 16V		R1327	1-249-417-11	CARBON 1K 5% 1/4W	
C1308	1-124-473-11	ELECT 1000MF 20% 10V		R1328	1-249-405-11	CARBON 100 5% 1/4W	
C1309	1-102-121-00	CERAMIC 0.0022MF 10% 50V		R1329	1-249-405-11	CARBON 100 5% 1/4W	
C1313	1-124-477-11	ELECT 47MF 20% 16V		R1330	1-249-405-11	CARBON 100 5% 1/4W	
C1314	1-124-477-11	ELECT 47MF 20% 16V		R1346	1-249-405-11	CARBON 100 5% 1/4W	
C1315	1-124-477-11	ELECT 47MF 20% 16V		R1347	1-249-417-11	CARBON 1K 5% 1/4W	
C1316	1-124-477-11	ELECT 47MF 20% 16V		R1348	1-249-433-11	CARBON 22K 5% 1/4W	
C1319	1-124-477-11	ELECT 47MF 20% 16V		R1349	1-249-429-11	CARBON 10K 5% 1/4W	
C1326	1-136-161-00	FILM 0.047MF 5% 50V		R1350	1-249-415-11	CARBON 680 5% 1/4W	
C1342	1-102-971-00	CERAMIC 82PF 5% 50V		R1351	1-249-409-11	CARBON 220 5% 1/4W	
C1343	1-123-875-11	ELECT 10MF 20% 50V		R1352	1-249-411-11	CARBON 330 5% 1/4W	
<FILTER BLOCK>				R1353	1-249-405-11	CARBON 100 5% 1/4W	
CM1301	1-464-880-11	FILTER BLOCK, COM (CFB-2)		R1355	1-249-417-11	CARBON 1K 5% 1/4W	
<DIODE>				R1356	1-249-405-11	CARBON 100 5% 1/4W	
D1301	8-719-911-19	DIODE 1SS119		R1367	1-249-418-11	CARBON 1.2K 5% 1/4W	
D1302	8-719-911-19	DIODE 1SS119		R1369	1-249-418-11	CARBON 1.2K 5% 1/4W	
<IC>				*****			
IC1304	8-759-710-69	IC NJM2233BS		*A-1245-453-A	F BOARD, COMPLETE	*****	
IC1305	8-759-710-69	IC NJM2233BS		*1-506-348-99	PIN, CONNECTOR 3P		
<TRANSISTOR>				*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		
Q1301	8-729-119-78	TRANSISTOR 2SC2785-HFE		*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P		
Q1302	8-729-119-76	TRANSISTOR 2SA1175-HFE		*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		
Q1303	8-729-119-78	TRANSISTOR 2SC2785-HFE		1-533-127-00	FUSE CLIP		
Q1307	8-729-119-78	TRANSISTOR 2SC2785-HFE		*1-533-189-11	HOLDER, FUSE		
Q1308	8-729-119-78	TRANSISTOR 2SC2785-HFE		*1-559-991-21	CONNECTOR ASSY 1P		
Q1309	8-729-119-78	TRANSISTOR 2SC2785-HFE		*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)		
<RESISTOR>				*1-564-505-11	PLUG, CONNECTOR 2P		
R1305	1-249-429-11	CARBON 10K 5% 1/4W		*1-564-506-11	PLUG, CONNECTOR 3P		
R1306	1-249-441-11	CARBON 100K 5% 1/4W		*1-564-508-11	PLUG, CONNECTOR 5P		
R1307	1-249-429-11	CARBON 10K 5% 1/4W		*1-565-514-11	SOCKET, CONNECTOR 2P		
R1308	1-249-417-11	CARBON 1K 5% 1/4W		*1-568-378-21	PIN, CONNECTOR 3P		
R1314	1-249-417-11	CARBON 1K 5% 1/4W		*4-341-752-01	EYELET (EY1, EY2, EY3, EY4, EY5, EY6, EY7)		
<CAPACITOR>				<CAPACITOR>			
C601	1-136-311-51	FILM 0.47MF 20% 125V		C601	1-136-311-51	FILM 0.47MF 20% 125V	
C603	1-108-391-12	MYLAR 0.15MF 10% 100V		C603	1-108-391-12	MYLAR 0.15MF 10% 100V	
C604	1-101-821-00	CERAMIC 0.0022MF 50% 50V		C604	1-101-821-00	CERAMIC 0.0022MF 10% 50V	
C605	1-162-576-51	CERAMIC 0.001MF 40% 40V		C605	1-162-576-51	CERAMIC 0.001MF 10% 40V	
C606	1-161-953-51	CERAMIC 0.0047MF 20% 40V		C606	1-161-953-51	CERAMIC 0.0047MF 20% 40V	
C607	1-162-599-12	CERAMIC 0.0047MF 20% 40V		C607	1-162-599-12	CERAMIC 0.0047MF 20% 40V	
C610	1-124-477-11	ELECT 47MF 20% 16V		C610	1-124-477-11	ELECT 47MF 20% 16V	

F

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The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C611	1-123-333-00	ELECT	100MF 20% 25V				
C616 $\Delta$	1-136-311-51	FILM	0.47MF 20% 125V				
C617	1-101-821-00	CERAMIC	0.0022MF 500V				
C618	1-124-477-11	ELECT	47MF 20% 16V				
C622	1-125-538-11	ELECT (BLOCK)	1000MF 20% 200V				
C650	1-161-830-00	CERAMIC	0.0047MF 500V				
C651	1-124-799-11	ELECT	2.2MF 20% 160V				
C652 $\Delta$	1-124-122-91	ELECT	100MF 20% 50V				
C653	1-102-244-00	CERAMIC	220PF 10% 500V				
C654	1-124-126-00	ELECT	47MF 20% 25V				
C655	1-136-173-00	FILM	0.47MF 5% 50V				
C656	1-106-383-00	MYLAR	0.047MF 10% 100V				
C657	1-136-601-11	FILM	0.01MF 10% 630V				
C658	1-162-114-00	CERAMIC	0.0047MF 2KV				
C660	1-162-599-12	CERAMIC	0.0047MF 20% 400V				
C661	1-102-125-00	CERAMIC	0.0047MF 10% 50V				
C663	1-124-618-11	ELECT	2200MF 20% 35V				
C664	1-126-103-11	ELECT	470MF 20% 16V				
C665	1-124-557-11	ELECT	1000MF 20% 25V				
C666	1-125-564-11	ELECT (BLOCK)	1000MF 20% 160V				
C667	1-102-129-00	CERAMIC	0.01MF 10% 50V				
C668	1-162-116-00	CERAMIC	680PF 10% 2KV				
C672	1-123-333-00	ELECT	100MF 20% 25V				
C673	1-102-129-00	CERAMIC	0.01MF 10% 50V				
C674	1-124-126-00	ELECT	47MF 20% 16V				
<DIODE>							
D601 $\Delta$	8-719-305-07	DIODE RBV-406H					
D602	8-719-911-55	DIODE U05G					
D603	8-719-911-55	DIODE U05G					
D604	8-719-911-19	DIODE 1SS119					
D605	8-719-911-55	DIODE U05G					
D607	8-719-911-19	DIODE 1SS119					
D651	8-719-911-19	DIODE 1SS119					
D652	8-719-300-33	DIODE RU-3AM					
D653	8-719-311-31	DIODE RU-1P					
D657	8-719-500-67	DIODE D5KC40H					
D658	8-719-981-00	DIODE ERC81-004					
D659	8-719-500-41	DIODE D8LCA20					
D660	8-719-312-10	DIODE RU4AM-T3					
<FUSE>							
F601 $\Delta$	1-532-748-11	FUSE, GLASS TUBE 6.3A/125V					
<FERRITE BEAD INDUCTOR>							
FB655	1-410-397-21	FERRITE BEAD INDUCTOR					
FB658	1-410-396-41	FERRITE BEAD INDUCTOR					
FB659	1-410-397-21	FERRITE BEAD INDUCTOR					
FB660	1-410-396-41	FERRITE BEAD INDUCTOR					
FB662	1-410-397-21	FERRITE BEAD INDUCTOR					
FB663	1-410-397-21	FERRITE BEAD INDUCTOR					
FB664	1-410-397-21	FERRITE BEAD INDUCTOR					
<IC>							
IC651 $\Delta$	8-749-920-81	IC STR-S6301A					
	*4-363-404-00	HOLDER, IC; IC651					
	4-393-406-01	SHEET (R), RADIATION; IC651					
IC652	8-719-156-73	DIODE PS2501-1LB					
IC653 $\Delta$	8-749-920-62	IC SE-135NS					
IC654 $\Delta$	8-749-920-61	IC SE-135N					
<COIL>							
L601	1-459-104-00	COIL, DUST CORE					
L657	1-459-155-00	COIL (WITH CORE) 45UH					
L658	1-459-155-00	COIL (WITH CORE) 45UH					
L659	1-459-407-00	COIL, FERRITE CHOKE					
<TRANSISTOR>							
Q602	8-729-255-12	TRANSISTOR 2SC2551					
Q603	8-729-200-17	TRANSISTOR 2SA1091					
Q651 $\Delta$	8-729-177-43	TRANSISTOR 2SD774					
Q652	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q653	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q654	8-729-119-76	TRANSISTOR 2SA1175-HFE					
<RESISTOR>							
R601 $\Delta$	1-202-723-51	SOLID	2.2M 10% 1/2W				
R602 $\Delta$	1-205-798-11	WIREWOUND	1.5 5% 20W F				
R603	1-215-885-00	METAL OXIDE	68 5% 2W F				
R605 $\Delta$	1-202-723-51	SOLID	2.2M 10% 1/2W				
R606	1-215-885-00	METAL OXIDE	68 5% 2W F				
R607	1-249-421-11	CARBON	2.2K 5% 1/4W				
R608	1-247-887-00	CARBON	220K 5% 1/4W				
R609	1-249-417-11	CARBON	1K 5% 1/4W				
R611	1-207-645-00	WIREWOUND	0.47 10% 3W F				
R612	1-249-417-11	CARBON	1K 5% 1/4W F				
R613	1-249-441-11	CARBON	100K 5% 1/4W				
R614	1-249-429-11	CARBON	10K 5% 1/4W				
R615	1-247-895-00	CARBON	470K 5% 1/4W				
R619 $\Delta$	1-216-341-51	METAL OXIDE	0.22 5% 1W F				
R620	1-216-444-11	METAL OXIDE	82K 5% 1W F				
R621	1-249-429-11	CARBON	10K 5% 1/4W				
R622	1-249-423-11	CARBON	3.3K 5% 1/4W				
R623	1-216-457-00	METAL OXIDE	1.2K 5% 2W F				
R624	1-216-458-11	METAL OXIDE	1.8K 5% 2W F				
R651	1-207-612-00	WIREWOUND	0.1 10% 2W F				
R652	1-207-612-00	WIREWOUND	0.1 10% 2W F				
R653	1-215-893-11	METAL OXIDE	1.5K 5% 2W F				
R654	1-205-945-11	WIREWOUND	33 10% 7W F				
R655	1-202-843-11	SOLID	270K 10% 1/2W				
R660 $\Delta$	1-249-414-51	CARBON	560 5% 1/4W F				
R661	1-249-413-11	CARBON	470 5% 1/4W				
R662	1-249-467-11	CARBON	68K 5% 1/4W F				
R663	1-247-706-11	CARBON	330 5% 1/4W F				
R664	1-249-425-11	CARBON	4.7K 5% 1/4W				
R665	1-249-417-11	CARBON	1K 5% 1/4W				
R666	1-249-425-11	CARBON	4.7K 5% 1/4W				
R667	1-249-417-11	CARBON	1K 5% 1/4W				
R668	1-249-429-11	CARBON	10K 5% 1/4W				
R669	1-249-417-11	CARBON	1K 5% 1/4W				
R670	1-249-427-11	CARBON	6.8K 5% 1/4W F				
R671	1-202-730-00	SOLID	8.2M 10% 1/2W				
R672	1-249-455-11	CARBON	4.7 5% 1/4W F				
R675	1-215-881-11	METAL OXIDE	15 5% 2W F				
R676	1-216-446-00	METAL OXIDE	18 5% 2W F				
R690	1-205-945-11	WIREWOUND	33 10% 7W F				
R691	1-216-468-11	METAL OXIDE	82K 5% 2W F				
R692	1-216-468-11	METAL OXIDE	82K 5% 2W F				
R693	1-216-468-11	METAL OXIDE	82K 5% 2W F				
R694	1-216-468-11	METAL OXIDE	82K 5% 2W F				
R695	1-216-468-11	METAL OXIDE	82K 5% 2W F				

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

KV-27HSR10  
RM-763

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A

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R696	1-207-682-00	WIREWOUND 47 10% 5W	F	C199	1-124-477-11	ELECT 47MF 20% 16V	
		<RELAY>		C201	1-124-478-11	ELECT 100MF 20% 25V	
RY601	1-515-601-11	RELAY		C202	1-102-121-00	CERAMIC 0.0022MF 10% 50V	
		<TRANSFORMER>		C203	1-102-121-00	CERAMIC 0.0022MF 10% 50V	
T601	1-424-220-21	TRANSFORMER, LINE FILTER		C301	1-124-120-11	ELECT 220MF 20% 16V	
T602	1-424-205-11	TRANSFORMER, LINE FILTER		C302	1-124-234-00	ELECT 22MF 20% 16V	
T603	1-448-916-11	TRANSFORMER, POWER		C303	1-136-153-00	FILM 0.01MF 5% 50V	
T651	1-449-607-11	TRANSFORMER		C304	1-124-499-11	ELECT 1MF 20% 50V	
		<THERMISTOR>		C305	1-124-465-00	ELECT 0.47MF 20% 50V	
THP601	1-808-081-22	THERMISTOR, POSITIVE		C306	1-124-234-00	ELECT 22MF 20% 16V	
*****				C307	1-102-978-00	CERAMIC 220PF 5% 50V	
*A-1296-567-A	A BOARD, COMPLETE			C308	1-102-965-00	CERAMIC 39PF 5% 50V	
	*****			C309	1-136-165-00	FILM 0.1MF 5% 50V	
*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P			C310	1-136-165-00	FILM 0.1MF 5% 50V	
*1-560-124-00	PLUG, CONNECTOR (2.5MM PITCH)			C311	1-136-165-00	FILM 0.1MF 5% 50V	
*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P			C312	1-136-169-00	FILM 0.22MF 5% 50V	
*1-564-505-11	PLUG, CONNECTOR 2P			C313	1-124-499-11	ELECT 1MF 20% 50V	
*1-564-507-11	PLUG, CONNECTOR 4P			C315	1-136-158-00	FILM 0.027MF 5% 50V	
*1-564-508-11	PLUG, CONNECTOR 5P			C316	1-102-973-00	CERAMIC 100PF 5% 50V	
*1-564-509-11	PLUG, CONNECTOR 6P			C317	1-136-169-00	FILM 0.22MF 5% 50V	
*1-564-511-11	PLUG, CONNECTOR 8P			C318	1-136-169-00	FILM 0.22MF 5% 50V	
*1-564-512-11	PLUG, CONNECTOR 9P			C319	1-102-980-00	CERAMIC 270PF 5% 50V	
*1-564-513-11	PLUG, CONNECTOR 10P			C320	1-124-499-11	ELECT 1MF 20% 50V	
*1-565-509-11	CONNECTOR, BOARD TO BOARD 18P			C321	1-136-153-00	FILM 0.01MF 5% 50V	
*1-568-371-11	PIN, CONNECTOR (PC BOARD) 15P			C322	1-124-499-11	ELECT 1MF 20% 50V	
*4-341-751-01	EYELET			C323	1-124-443-00	ELECT 100MF 20% 10V	
*4-341-752-01	EYELET (EY1, EY2, EY3, EY4, EY5)			C324	1-102-114-00	CERAMIC 470PF 10% 50V	
		<CONNECTOR>		C325	1-102-114-00	CERAMIC 470PF 10% 50V	
A33	*1-564-511-11	PLUG, CONNECTOR 8P		C326	1-124-499-11	ELECT 1MF 20% 50V	
		<CAPACITOR>		C327	1-130-479-00	MYLAR 0.0047MF 5% 50V	
C101	1-123-875-11	ELECT 10MF 20% 50V		C328	1-123-875-11	ELECT 10MF 20% 50V	
C102	1-126-233-11	ELECT 22MF 20% 25V		C329	1-124-799-11	ELECT 2.2MF 20% 160V	
C103	1-124-360-00	ELECT 1000MF 20% 16V		C331	1-102-112-00	CERAMIC 330PF 10% 50V	
C104	1-124-473-11	ELECT 1000MF 20% 10V		C332	1-136-157-00	FILM 0.022MF 5% 50V	
C106	1-136-153-00	FILM 0.01MF 5% 50V		C333	1-124-499-11	ELECT 1MF 20% 50V	
C107	1-119-160-00	ELECT 470MF 10V		C334	1-136-161-00	FILM 0.047MF 5% 50V	
C108	1-123-875-11	ELECT 10MF 20% 50V		C335	1-130-471-00	MYLAR 0.001MF 5% 50V	
C109	1-102-973-00	CERAMIC 100PF 5% 50V		C338	1-126-233-11	ELECT 22MF 20% 50V	
C111	1-102-978-00	CERAMIC 220PF 5% 50V		C339	1-123-875-11	ELECT 10MF 20% 50V	
C112	1-136-161-00	FILM 0.047MF 5% 50V		C340	1-124-902-00	ELECT 0.47MF 20% 50V	
C113	1-124-499-11	ELECT 1MF 20% 50V		C342	1-161-377-00	CERAMIC 0.0047MF 30% 50V	
C114	1-102-978-00	CERAMIC 220PF 5% 50V		C343	1-119-363-00	ELECT 4.7MF 25V	
C115	1-101-006-00	CERAMIC 0.047MF 50V		C344	1-126-176-11	ELECT 220MF 20% 10V	
C116	1-102-973-00	CERAMIC 100PF 5% 50V		C351	1-136-169-00	FILM 0.22MF 5% 50V	
C119	1-123-875-11	ELECT 10MF 20% 50V		C352	1-136-165-00	FILM 0.1MF 5% 50V	
C120	1-124-360-00	ELECT 1000MF 20% 16V		C353	1-124-902-00	ELECT 0.47MF 20% 50V	
C121	1-136-165-00	FILM 0.1MF 5% 50V		C382	1-124-234-00	ELECT 22MF 20% 16V	
C124	1-130-728-00	FILM 0.0022MF 5% 50V		C500	1-130-475-00	MYLAR 0.0022MF 5% 50V	
C125	1-102-121-00	CERAMIC 0.0022MF 10% 50V		C501	1-124-122-11	ELECT 100MF 20% 50V	
C126	1-102-121-00	CERAMIC 0.0022MF 10% 50V		C502	1-124-557-91	ELECT 1000MF 20% 25V	
C128	1-124-477-11	ELECT 47MF 20% 16V		C503	1-124-477-11	ELECT 47MF 20% 25V	
C129	1-136-161-00	FILM 0.047MF 5% 50V		C504	1-106-216-00	MYLAR 0.068MF 10% 100V	
				C505	1-106-383-00	MYLAR 0.047MF 10% 100V	
				C508	1-136-161-00	FILM 0.047MF 5% 50V	
				C509	1-106-387-00	MYLAR 0.068MF 10% 200V	
				C510	1-102-228-00	CERAMIC 470PF 10% 500V	
				C511	1-124-494-00	ELECT 33MF 160V	
				C512	1-124-046-00	ELECT 10MF 20% 160V	
				C513	1-124-477-11	ELECT 47MF 20% 25V	
				C514	1-124-557-11	ELECT 1000MF 20% 25V	
				C515	1-162-114-00	CERAMIC 0.0047MF 2KV	
				C516	1-162-116-00	CERAMIC 680PF 10% 2KV	
				C517	1-162-116-00	CERAMIC 680PF 10% 2KV	

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specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C518	1-106-359-00	MYLAR	0.0047MF 10% 200V	CP109	1-236-358-21	NETWORK, RES	
C519 $\Delta$	1-136-897-11	FILM	0.021MF 3% 2KV	CP110	1-236-294-21	NETWORK, RES	
C520	1-162-116-00	CERAMIC	680PF 10% 2KV				
C521	1-162-558-11	CERAMIC	100PF 10% 2KV				
C522 $\Delta$	1-136-896-51	FILM	0.091MF 5% 630V				
C523	1-102-244-00	CERAMIC	220PF 10% 500V				
C524	1-106-383-00	MYLAR	0.047MF 10% 200V				
C525	1-124-902-00	ELECT	0.47MF 20% 50V				
C526	1-102-244-00	CERAMIC	220PF 10% 500V				
C527	1-162-318-11	CERAMIC	0.001MF 10% 500V				
C528	1-102-030-00	CERAMIC	330PF 10% 500V				
C529	1-136-109-00	FILM	0.68MF 5% 200V				
C530	1-123-947-00	ELECT	10MF 20% 250V				
C531	1-130-475-00	MYLAR	0.0022MF 5% 50V				
C532	1-130-475-00	MYLAR	0.0022MF 5% 50V				
C533	1-130-471-00	MYLAR	0.001MF 5% 50V				
C534	1-124-477-11	ELECT	47MF 20% 25V				
C535	1-123-948-00	ELECT	22MF 20% 250V				
C536	1-136-559-11	FILM	0.0047MF 10% 630V				
C537	1-124-927-11	ELECT	4.7MF 20% 50V				
C541	1-106-383-00	MYLAR	0.047MF 200V				
C543	1-136-828-11	FILM	1.8MF 5% 200V				
C544	1-106-343-00	MYLAR	0.001MF 10% 100V				
C545	1-124-910-11	ELECT	47MF 20% 50V				
C546	1-102-228-00	CERAMIC	470PF 10% 500V				
C548	1-124-927-11	ELECT	4.7MF 20% 50V				
C549	1-124-477-11	ELECT	47MF 20% 25V				
C550	1-136-111-00	FILM	1MF 5% 200V				
C551	1-124-927-11	ELECT	4.7MF 20% 50V				
C552	1-102-228-00	CERAMIC	470PF 10% 500V				
C553	1-123-875-11	ELECT	10MF 20% 50V				
C555	1-123-875-11	ELECT	10MF 20% 50V				
C556	1-123-932-00	ELECT	4.7MF 20% 160V				
C557	1-102-114-00	CERAMIC	470PF 10% 50V				
C558	1-136-161-00	FILM	0.047MF 5% 50V				
C559	1-136-165-00	FILM	0.1MF 5% 50V				
C581	1-124-478-11	ELECT	100MF 20% 25V				
C582	1-124-478-11	ELECT	100MF 20% 25V				
C583	1-124-478-11	ELECT	100MF 20% 25V				
C584	1-124-478-11	ELECT	100MF 20% 25V				
C585	1-124-478-11	ELECT	100MF 20% 25V				
C586	1-124-478-11	ELECT	100MF 20% 25V				
C611 $\Delta$	1-102-125-91	CERAMIC	0.0047MF 10% 50V				
C612 $\Delta$	1-102-125-91	CERAMIC	0.0047MF 10% 50V				
C613	1-124-480-11	ELECT	470MF 20% 25V				
C614	1-124-480-11	ELECT	470MF 20% 25V				
C619	1-124-478-11	ELECT	100MF 20% 25V				
C620	1-123-875-11	ELECT	10MF 20% 50V				
C640	1-136-165-00	FILM	0.1MF 5% 50V				
C641	1-101-006-00	CERAMIC	0.047MF 50V				
C642	1-102-129-00	CERAMIC	0.01MF 10% 50V				
C643	1-101-005-00	CERAMIC	0.022MF 50V				
C644	1-101-005-00	CERAMIC	0.022MF 50V				
C1701	1-102-976-00	CERAMIC	180PF 5% 50V				
C1702	1-102-973-00	CERAMIC	100PF 5% 50V				
C1703	1-124-477-11	ELECT	47MF 20% 16V				
<NETWORK>							
CP102	1-236-301-11	NETWORK, C					
CP103	1-236-491-11	NETWORK, RES, THICK FILM					
CP105	1-236-479-11	NETWORK, C					
CP106	1-236-479-11	NETWORK, C					
CP108	1-236-358-21	NETWORK, RES					
<DIODE>							
D101	8-719-110-78	DIODE RD33ES-B2					
D102	8-719-911-19	DIODE 1SS119					
D103	8-719-911-19	DIODE 1SS119					
D104	8-719-911-19	DIODE 1SS119					
D105	8-719-974-81	DIODE 1SV113					
D106	8-719-911-19	DIODE 1SS119					
D112	8-719-911-19	DIODE 1SS119					
D114	8-719-911-19	DIODE 1SS119					
D301	8-719-110-48	DIODE RD18ES-B1					
D302	8-719-109-89	DIODE RD5.6ES-B2					
D303	8-719-109-84	DIODE RD5.1ES-B1					
D304	8-719-109-96	DIODE RD6.8ES-B1					
D306	8-719-911-19	DIODE 1SS119					
D307	8-719-911-19	DIODE 1SS119					
D308	8-719-911-19	DIODE 1SS119					
D350	8-719-109-89	DIODE RD5.6ES-B2					
D500	8-719-911-55	DIODE U05G					
D501	8-719-300-33	DIODE RU-3AM					
D502	8-719-902-85	DIODE RG3G-5007L					
D503	8-719-901-58	DIODE RGP15J					
D504	8-719-500-26	DIODE D5KD20H					
D505	8-719-300-65	DIODE ES1F					
D506	8-719-911-19	DIODE 1SS119					
D507	8-719-300-33	DIODE RU-3AM					
D508	8-719-911-19	DIODE 1SS119					
D509	8-719-911-19	DIODE 1SS119					
D511	8-719-902-85	DIODE RG3G-5007L					
D512	8-719-311-87	DIODE FMS-3FU					
	*4-393-401-01	SPRING; D512					
D513	8-719-911-19	DIODE 1SS119					
D514	8-719-911-19	DIODE 1SS119					
D515	8-719-911-19	DIODE 1SS119					
D531	8-719-911-19	DIODE 1SS119					
D533	8-719-109-81	DIODE RD4.7ES-B2					
D536	8-719-300-33	DIODE RU-3AM					
D537	8-719-911-19	DIODE 1SS119					
D539	8-719-302-43	DIODE EL1Z					
D602	8-719-511-40	DIODE 1SVB40					
D640	8-719-911-19	DIODE 1SS119					
<IC>							
IC101	8-759-632-89	IC M37100M8-717SP					
IC102	8-759-972-43	IC PC08582					
IC103	8-759-403-44	IC MN1280-S					
IC301	8-752-035-52	IC CXA1313S					
IC500	8-759-980-58	IC TDA8172					
	*4-393-401-01	SPRING; IC500					
	4-393-405-01	SHEET (V), RADIATION; IC500					
IC531	8-759-103-93	IC UPC393C					
IC581 $\Delta$	8-759-142-04	IC UPC7893HF					
	*4-393-401-01	SPRING; IC581					
IC582 $\Delta$	8-759-142-04	IC UPC7893HF					
	*4-368-683-01	SPRING; IC582					
IC601	8-759-112-06	IC UPC78N05H					
IC901 $\Delta$	8-759-171-05	IC UPC7805H					
IC1701	8-759-978-66	IC MB88201-638L					

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KV-27HSR10  
RM-763

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<IF BLOCK>				<RESISTOR>			
IF201	1-464-755-21	IF BLOCK (IFE-450A)		R101	1-249-425-11	CARBON 4.7K 5%	1/4W
<COIL>				R102	1-249-416-11	CARBON 820 5%	1/4W
L101	1-408-421-00	INDUCTOR 100UH		R103	1-215-896-00	METAL OXIDE 4.7K 5%	2W F
L102	1-408-415-00	INDUCTOR 33UH		R105	1-249-429-11	CARBON 10K 5%	1/4W
L201	1-408-408-00	INDUCTOR 8.2UH		R106	1-249-421-11	CARBON 2.2K 5%	1/4W
L500	1-422-613-11	COIL, AIR CORE		R107	1-249-417-11	CARBON 1K 5%	1/4W
L501	1-459-148-00	COIL		R108	1-249-421-11	CARBON 2.2K 5%	1/4W
L503	1-422-613-11	COIL, AIR CORE		R109	1-249-421-11	CARBON 2.2K 5%	1/4W
L505 $\Delta$	1-410-669-31	INDUCTOR 33UH		R110	1-249-421-11	CARBON 2.2K 5%	1/4W
L506	1-408-225-00	INDUCTOR 3.3UH		R111	1-249-421-11	CARBON 2.2K 5%	1/4W
L507	1-421-541-00	COIL, CHOKE 1000UH		R112	1-249-421-11	CARBON 2.2K 5%	1/4W
L508 $\Delta$	1-424-210-11	COIL, PIN MODULATION		R113	1-249-421-11	CARBON 2.2K 5%	1/4W
L509	1-422-613-11	COIL, AIR CORE		R114	1-249-421-11	CARBON 2.2K 5%	1/4W
L511	1-408-225-00	INDUCTOR 3.3UH		R115	1-249-421-11	CARBON 2.2K 5%	1/4W
L512 $\Delta$	1-459-973-21	COIL, HORIZONTAL LINEARITY		R116	1-249-409-11	CARBON 220 5%	1/4W
L513	1-408-698-00	INDUCTOR 8.2UH		R117	1-249-409-11	CARBON 220 5%	1/4W
L514 $\Delta$	1-408-698-21	INDUCTOR 8.2UH		R118	1-249-409-11	CARBON 220 5%	1/4W
L1701	1-408-413-00	INDUCTOR 22UH		R119	1-249-431-11	CARBON 15K 5%	1/4W
<NEON LAMP>				R120	1-249-421-11	CARBON 2.2K 5%	1/4W
NL501	1-519-108-99	LAMP, NEON		R121	1-249-421-11	CARBON 2.2K 5%	1/4W
<MODULE>				R122	1-249-421-11	CARBON 2.2K 5%	1/4W
PM501A $\Delta$	1-808-690-11	MODULE, PROTECTOR (PM-14)		R123	1-249-421-11	CARBON 2.2K 5%	1/4W
<TRANSISTOR>				R124	1-249-421-11	CARBON 2.2K 5%	1/4W
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE		R125	1-249-421-11	CARBON 2.2K 5%	1/4W
Q102	8-729-119-76	TRANSISTOR 2SA1175-HFE		R126	1-249-421-11	CARBON 2.2K 5%	1/4W
Q104	8-729-119-76	TRANSISTOR 2SA1175-HFE		R127	1-249-413-11	CARBON 470 5%	1/4W
Q105	8-729-119-78	TRANSISTOR 2SC2785-HFE		R128	1-249-425-11	CARBON 4.7K 5%	1/4W
Q107	8-729-119-78	TRANSISTOR 2SC2785-HFE		R129	1-249-425-11	CARBON 4.7K 5%	1/4W
Q108	8-729-119-78	TRANSISTOR 2SC2785-HFE		R130	1-249-437-11	CARBON 47K 5%	1/4W
Q170	8-729-119-78	TRANSISTOR 2SC2785-HFE		R131	1-249-429-11	CARBON 10K 5%	1/4W
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE		R133	1-249-421-11	CARBON 2.2K 5%	1/4W
Q301	8-729-119-76	TRANSISTOR 2SA1175-HFE		R134	1-249-421-11	CARBON 2.2K 5%	1/4W
Q302	8-729-900-89	TRANSISTOR DTC144ES		R135	1-249-429-11	CARBON 10K 5%	1/4W
Q303	8-729-119-76	TRANSISTOR 2SA1175-HFE		R136	1-249-429-11	CARBON 10K 5%	1/4W
Q304	8-729-119-76	TRANSISTOR 2SA1175-HFE		R137	1-249-409-11	CARBON 220 5%	1/4W
Q306	8-729-119-76	TRANSISTOR 2SA1175-HFE		R138	1-249-425-11	CARBON 4.7K 5%	1/4W
Q307	8-729-119-78	TRANSISTOR 2SC2785-HFE		R139	1-249-421-11	CARBON 2.2K 5%	1/4W
Q308	8-729-900-89	TRANSISTOR DTC144ES		R140	1-249-439-11	CARBON 68K 5%	1/4W
Q310	8-729-119-78	TRANSISTOR 2SC2785-HFE		R141	1-247-903-00	CARBON 1M 5%	1/4W
Q311	8-729-119-78	TRANSISTOR 2SC2785-HFE		R142	1-249-437-11	CARBON 47K 5%	1/4W
Q312	8-729-119-76	TRANSISTOR 2SA1175-HFE		R143	1-249-437-11	CARBON 47K 5%	1/4W
Q313	8-729-119-78	TRANSISTOR 2SC2785-HFE		R144	1-215-896-00	METAL OXIDE 4.7K 5%	2W F
Q314	8-729-119-78	TRANSISTOR 2SC2785-HFE		R145	1-249-429-11	CARBON 10K 5%	1/4W
Q351	8-729-119-78	TRANSISTOR 2SC2785-HFE		R146	1-247-903-00	CARBON 1M 5%	1/4W
Q352	8-729-119-78	TRANSISTOR 2SC2785-HFE		R147	1-249-429-11	CARBON 10K 5%	1/4W
Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE		R148	1-249-429-11	CARBON 10K 5%	1/4W
Q502	8-729-119-80	TRANSISTOR 2SC2688-LK		R149	1-215-896-00	METAL OXIDE 4.7K 5%	2W F
Q503	8-729-304-50	TRANSISTOR 2SD1941-06		R150	1-249-441-11	CARBON 100K 5%	1/4W
*4-393-401-01	SPRING; Q503			R151	1-249-429-11	CARBON 10K 5%	1/4W
Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE		R152	1-249-425-11	CARBON 4.7K 5%	1/4W
Q505	8-729-208-72	TRANSISTOR 2SC3298B-Y		R153	1-249-429-11	CARBON 10K 5%	1/4W
Q506	8-729-119-76	TRANSISTOR 2SA1175-HFE		R154	1-249-429-11	CARBON 10K 5%	1/4W
				R155	1-249-409-11	CARBON 220 5%	1/4W
				R156	1-249-409-11	CARBON 220 5%	1/4W
				R158	1-249-429-11	CARBON 10K 5%	1/4W
				R159	1-249-437-11	CARBON 47K 5%	1/4W
				R160	1-247-887-00	CARBON 220K 5%	1/4W
				R161	1-249-409-11	CARBON 220 5%	1/4W
				R162	1-249-409-11	CARBON 220 5%	1/4W
				R163	1-249-421-11	CARBON 2.2K 5%	1/4W
				R164	1-249-409-11	CARBON 220 5%	1/4W
				R165	1-249-409-11	CARBON 220 5%	1/4W
				R166	1-249-409-11	CARBON 220 5%	1/4W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R167	1-249-429-11	CARBON	10K 5% 1/4W	R330	1-249-421-11	CARBON	2.2K 5% 1/4W
R168	1-249-429-11	CARBON	10K 5% 1/4W	R332	1-247-895-00	CARBON	470K 5% 1/4W
R169	1-249-429-11	CARBON	10K 5% 1/4W	R333	1-249-409-11	CARBON	220 5% 1/4W
R170	1-249-429-11	CARBON	10K 5% 1/4W	R334	1-249-420-11	CARBON	1.8K 5% 1/4W
R171	1-249-421-11	CARBON	2.2K 5% 1/4W	R335	1-249-441-11	CARBON	100K 5% 1/4W
R172	1-249-429-11	CARBON	10K 5% 1/4W	R336	1-249-405-11	CARBON	100 5% 1/4W
R173	1-249-421-11	CARBON	2.2K 5% 1/4W	R337	1-249-438-11	CARBON	56K 5% 1/4W
R174	1-249-421-11	CARBON	2.2K 5% 1/4W	R339	1-249-411-11	CARBON	330 5% 1/4W
R175	1-249-421-11	CARBON	2.2K 5% 1/4W	R340	1-249-405-11	CARBON	100 5% 1/4W
R176	1-249-421-11	CARBON	2.2K 5% 1/4W	R341	1-249-405-11	CARBON	100 5% 1/4W
R177	1-249-409-11	CARBON	220 5% 1/4W	R342	1-249-405-11	CARBON	100 5% 1/4W
R178	1-249-417-11	CARBON	1k 5% 1/4W	R343	1-249-405-11	CARBON	100 5% 1/4W
R179	1-249-417-11	CARBON	1k 5% 1/4W	R344	1-249-405-11	CARBON	100 5% 1/4W
R181	1-249-417-11	CARBON	1k 5% 1/4W	R345	1-215-869-11	METAL OXIDE	1K 5% 1W F
R182	1-249-421-11	CARBON	2.2K 5% 1/4W	R346	1-249-413-11	CARBON	470 5% 1/4W
R183	1-249-421-11	CARBON	2.2K 5% 1/4W	R347	1-259-884-11	CARBON	4.7M 5% 1/4W
R184	1-249-417-11	CARBON	1K 5% 1/4W	R349	1-249-409-11	CARBON	220 5% 1/4W
R185	1-249-417-11	CARBON	1K 5% 1/4W	R350	1-249-423-11	CARBON	3.3K 5% 1/4W
R186	1-249-433-11	CARBON	22K 5% 1/4W	R351	1-249-441-11	CARBON	100K 5% 1/4W
R187	1-249-421-11	CARBON	2.2K 5% 1/4W	R352	1-249-441-11	CARBON	100K 5% 1/4W
R188	1-249-425-11	CARBON	4.7K 5% 1/4W	R353	1-249-441-11	CARBON	100K 5% 1/4W
R189	1-249-433-11	CARBON	22K 5% 1/4W	R354	1-249-433-11	CARBON	22K 5% 1/4W
R190	1-249-421-11	CARBON	2.2K 5% 1/4W	R355	1-249-433-11	CARBON	22K 5% 1/4W
R191	1-249-421-11	CARBON	2.2K 5% 1/4W	R356	1-249-433-11	CARBON	22K 5% 1/4W
R192	1-249-421-11	CARBON	2.2K 5% 1/4W	R357	1-249-437-11	CARBON	47K 5% 1/4W
R194	1-249-417-11	CARBON	1K 5% 1/4W	R358	1-247-891-00	CARBON	330K 5% 1/4W
R195	1-249-421-11	CARBON	2.2K 5% 1/4W	R359	1-249-433-11	CARBON	22K 5% 1/4W
R196	1-249-421-11	CARBON	2.2K 5% 1/4W	R360	1-249-433-11	CARBON	22K 5% 1/4W
R197	1-259-884-11	CARBON	4.7M 5% 1/4W	R361	1-249-431-11	CARBON	15K 5% 1/4W
R198	1-249-417-11	CARBON	1K 5% 1/4W	R362	1-249-421-11	CARBON	2.2K 5% 1/4W
R200	1-249-417-11	CARBON	1K 5% 1/4W	R363	1-249-421-11	CARBON	2.2K 5% 1/4W
R201	1-249-425-11	CARBON	4.7K 5% 1/4W	R364	1-249-405-11	CARBON	100 5% 1/4W
R202	1-249-429-11	CARBON	10K 5% 1/4W	R365	1-249-405-11	CARBON	100 5% 1/4W
R203	1-249-435-11	CARBON	33K 5% 1/4W	R366	1-249-437-11	CARBON	47K 5% 1/4W
R204	1-249-435-11	CARBON	33K 5% 1/4W	R367	1-249-417-11	CARBON	1K 5% 1/4W
R205	1-249-411-11	CARBON	330 5% 1/4W	R373	1-249-417-11	CARBON	1K 5% 1/4W
R208	1-216-423-11	METAL OXIDE	27 5% 1W F	R374	1-249-428-11	CARBON	8.2K 5% 1/4W
R209	1-249-417-11	CARBON	1K 5% 1/4W	R375	1-249-421-11	CARBON	2.2K 5% 1/4W
R212	1-249-417-11	CARBON	1K 5% 1/4W	R376	1-249-425-11	CARBON	4.7K 5% 1/4W
R301	1-215-448-00	METAL	13K 1% 1/6W	R377	1-249-439-11	CARBON	68K 5% 1/4W
R304	1-249-432-11	CARBON	18K 5% 1/4W	R378	1-249-427-11	CARBON	6.8K 5% 1/4W
R305	1-247-899-11	CARBON	680K 5% 1/4W	R379	1-249-421-11	CARBON	2.2K 5% 1/4W
R306	1-215-421-00	METAL	1K 1% 1/6W	R380	1-249-424-11	CARBON	3.9K 5% 1/4W
R307	1-249-405-11	CARBON	100 5% 1/4W	R381	1-249-421-11	CARBON	2.2K 5% 1/4W
R308	1-249-405-11	CARBON	100 5% 1/4W	R382	1-249-413-11	CARBON	470 5% 1/4W
R309	1-249-405-11	CARBON	100 5% 1/4W	R383	1-249-429-11	CARBON	10K 5% 1/4W
R310	1-249-409-11	CARBON	220 5% 1/4W	R385	1-247-903-00	CARBON	1M 5% 1/4W
R311	1-249-409-11	CARBON	220 5% 1/4W	R386	1-249-417-11	CARBON	1K 5% 1/4W
R312	1-249-409-11	CARBON	220 5% 1/4W	R500	1-249-433-11	CARBON	22K 5% 1/4W
R313	1-249-409-11	CARBON	220 5% 1/4W	R501	1-215-459-00	METAL	39K 1% 1/6W F
R314	1-249-409-11	CARBON	220 5% 1/4W	R502	1-216-371-00	METAL OXIDE	1.5 5% 2W F
R315	1-249-417-11	CARBON	1K 5% 1/4W	R503	1-249-437-11	CARBON	47K 5% 1/4W
R316	1-249-425-11	CARBON	4.7K 5% 1/4W	R504	1-215-446-00	METAL	11K 1% 1/6W F
R317	1-249-429-11	CARBON	10K 5% 1/4W	R505	1-216-453-00	METAL OXIDE	270 5% 2W F
R320	1-249-429-11	CARBON	10K 5% 1/4W	R507	1-249-439-11	CARBON	68K 5% 1/4W F
R321	1-249-441-11	CARBON	100K 5% 1/4W	R510	1-249-393-11	CARBON	10 5% 1/4W F
R322	1-249-428-11	CARBON	8.2K 5% 1/4W	R511	1-249-436-11	CARBON	39K 5% 1/4W
R323	1-215-457-00	METAL	33K 1% 1/6W	R513	1-249-425-11	CARBON	4.7K 5% 1/4W
R324	1-249-405-11	CARBON	100 5% 1/4W	R516 <b>A</b>	1-249-443-51	CARBON	0.47 5% 1/4W F
R325	1-249-414-11	CARBON	560 5% 1/4W	R517 <b>A</b>	1-216-355-91	METAL OXIDE	3.3 5% 1W F
R326	1-249-421-11	CARBON	2.2K 5% 1/4W	R518	1-249-482-11	CARBON	4.7 5% 1/2W F
R327	1-249-417-11	CARBON	1K 5% 1/4W	R519 <b>A</b>	1-215-871-91	METAL OXIDE	2.2K 5% 1W F
R328	1-249-413-11	CARBON	470 5% 1/4W	R521 <b>A</b>	1-249-465-91	CARBON	47K 5% 1/4W F
R329	1-249-425-11	CARBON	4.7K 5% 1/4W				

• The components identified by **■** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.

The components identified by shading and mark **▲** are critical for safety. Replace only with part number specified.

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**A**

**X**

REF. NO.	PART NO.	DESCRIPTION	REMARK
R522	1-215-868-00	METAL OXIDE 680 5%	1W F
R523	1-216-342-11	METAL OXIDE 0.27 5%	1W F
R524	1-215-890-11	METAL OXIDE 470 5%	2W F
R528	1-215-880-00	METAL OXIDE 10 5%	2W F
R529	1-249-426-11	CARBON 5.6K 5%	1/4W
R530	1-247-887-00	CARBON 220K 5%	1/4W
R531	1-216-456-00	METAL OXIDE 820 5%	2W F
R533	1-249-429-11	CARBON 10K 5%	1/4W
R534	1-249-437-11	CARBON 47K 5%	1/4W
R535	1-249-432-11	CARBON 18K 5%	1/4W
R536	1-247-889-00	CARBON 270K 5%	1/4W
R537	1-247-883-00	CARBON 150K 5%	1/4W
R538	1-247-883-00	CARBON 150K 5%	1/4W
R539	1-216-456-00	METAL OXIDE 820 5%	2W F
R541	1-215-437-00	METAL 4.7K 1%	1/6W
R542	1-249-441-11	CARBON 100K 5%	1/4W
R544	1-247-903-00	CARBON 1M 5%	1/4W
R545	1-247-903-00	CARBON 1M 5%	1/4W
R546	1-247-891-00	CARBON 330K 5%	1/4W
R547	1-247-903-00	CARBON 1M 5%	1/4W
■R549▲	1-249-413-11	CARBON 470 5%	1/4W
R551	1-249-405-11	CARBON 100 5%	1/4W F
R552	1-249-405-11	CARBON 100 5%	1/4W F
R553	1-249-401-11	CARBON 47 5%	1/4W
R554	1-249-423-11	CARBON 3.3K 5%	1/4W
R555	1-247-722-11	CARBON 5.6K 5%	1/4W F
R556	1-249-455-11	CARBON 4.7 5%	1/4W F
R558	1-215-890-11	METAL OXIDE 470 5%	2W F
R559▲	1-216-380-91	METAL OXIDE 8.2 5%	2W F
R560	1-247-887-00	CARBON 220K 5%	1/4W
R561	1-249-441-11	CARBON 100K 5%	1/4W
R562	1-247-734-11	CARBON 39 5%	1/2W F
R563	1-215-890-11	METAL OXIDE 470 5%	2W F
■R567▲	1-249-431-11	CARBON 15K 5%	1/4W
R568	1-249-431-11	CARBON 15K 5%	1/4W
R569	1-249-425-11	CARBON 4.7K 5%	1/4W
R570	1-249-439-11	CARBON 68K 5%	1/4W
R571▲	1-213-048-51	FUSIBLE 3.3 5%	1W F
R572▲	1-216-377-91	METAL OXIDE 4.7 5%	2W F
R573▲	1-216-377-91	METAL OXIDE 4.7 5%	2W F
R574	1-249-409-11	CARBON 220 5%	1/4W F
R575	1-249-405-11	CARBON 100 5%	1/4W
R601	1-249-443-11	CARBON 0.47 5%	1/4W F
R606	1-216-425-11	METAL OXIDE 56 5%	1W F
R620	1-249-440-11	CARBON 82K 5%	1/4W
R621	1-249-429-11	CARBON 10K 5%	1/4W
R622	1-249-441-11	CARBON 100K 5%	1/4W
R624	1-249-435-11	CARBON 33K 5%	1/4W
R625	1-249-423-11	CARBON 3.3K 5%	1/4W
R626	1-249-434-11	CARBON 27K 5%	1/4W
R1701	1-249-417-11	CARBON 1K 5%	1/4W
R1702	1-249-417-11	CARBON 1K 5%	1/4W
R1703	1-249-417-11	CARBON 1K 5%	1/4W
R1704	1-249-417-11	CARBON 1K 5%	1/4W
R1705	1-249-417-11	CARBON 1K 5%	1/4W
R1706	1-249-417-11	CARBON 1K 5%	1/4W
R1707	1-249-417-11	CARBON 1K 5%	1/4W
R1708	1-249-417-11	CARBON 1K 5%	1/4W
R1709	1-249-417-11	CARBON 1K 5%	1/4W
R1710	1-249-417-11	CARBON 1K 5%	1/4W
R1711	1-249-417-11	CARBON 1K 5%	1/4W
R1712	1-249-417-11	CARBON 1K 5%	1/4W
R1713	1-249-417-11	CARBON 1K 5%	1/4W
R1714	1-249-429-11	CARBON 10K 5%	1/4W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1715	1-249-429-11	CARBON 10K 5%	1/4W
<SPARK GAP>			
SG501	1-519-422-11	GAP, SPARK	
<TRANSFORMER>			
T500▲	1-439-455-11	TRANSFORMER ASSY, FLYBACK (NX-2300)	
T501▲	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE	
<TUNER>			
TU101A	1-463-771-11	TUNER, ET (BTP-201A)	
<CRYSTAL>			
X101	1-577-082-11	VIBRATOR, CERAMIC	
X301	1-567-505-11	OSCILLATOR, CRYSTAL	
*****			
*1-629-624-11	X BOARD	*****	
*1-568-380-21	PIN, CONNECTOR 15P		
<CAPACITOR>			
C251	1-124-499-11	ELECT 1MF	20% 50V
C252	1-136-157-00	FILM 0.022MF	5% 50V
C253	1-124-499-11	ELECT 1MF	20% 50V
C254	1-130-309-00	FILM 0.033MF	5% 100V
C255	1-124-499-11	ELECT 1MF	20% 50V
C256	1-124-478-11	ELECT 100MF	20% 25V
C257	1-124-927-11	ELECT 4.7MF	20% 50V
C258	1-124-902-00	ELECT 0.47MF	20% 50V
C259	1-124-499-11	ELECT 1MF	20% 50V
C260	1-124-499-11	ELECT 1MF	20% 50V
C261	1-124-499-11	ELECT 1MF	20% 50V
C262	1-124-499-11	ELECT 1MF	20% 50V
C263	1-124-499-11	ELECT 1MF	20% 50V
C264	1-123-875-11	ELECT 10MF	20% 50V
C265	1-136-170-00	FILM 0.27MF	5% 50V
C266	1-123-875-11	ELECT 10MF	20% 50V
C267	1-131-368-00	TANTALUM 3.3MF	10% 16V
C268	1-124-499-11	ELECT 1MF	20% 50V
C269	1-131-347-00	TANTALUM 1MF	20% 16V
C270	1-124-499-11	ELECT 1MF	20% 50V
C271	1-123-875-11	ELECT 10MF	20% 50V
C272	1-124-499-11	ELECT 1MF	20% 50V
C273	1-124-477-11	ELECT 47MF	20% 16V
C274	1-130-475-00	MYLAR 0.0022MF	5% 50V
C275	1-130-475-00	MYLAR 0.0022MF	5% 50V
C276	1-102-074-00	CERAMIC 0.001MF	10% 50V
C277	1-123-875-11	ELECT 10MF	20% 50V
C278	1-124-499-11	ELECT 1MF	20% 50V
C280	1-123-875-11	ELECT 10MF	20% 50V
C281	1-123-875-11	ELECT 10MF	20% 50V
C282	1-123-875-11	ELECT 10MF	20% 50V
C284	1-123-875-11	ELECT 10MF	20% 50V
C285	1-136-171-00	FILM 0.33MF	5% 50V
C286	1-136-175-00	FILM 0.68MF	5% 50V



X


C


Les composants identifiés par  
une trame et une marque  $\Delta$   
sont critiques pour la sécurité.  
Ne les remplacer que par une  
pièce portant le numéro spécifié.

The components identified by  
shading and mark  $\Delta$  are critical  
for safety.  
Replace only with part number  
specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<IC>				<JACK>			
IC251	8-752-035-54	IC CXA1264S		J701	1-540-071-11	SOCKET, PICTURE TUBE	
<RESISTOR>				<COIL>			
R251	1-249-409-11	CARBON	220 5% 1/4W	L701 $\Delta$	1-408-417-31	INDUCTOR	47UH
R252	1-249-409-11	CARBON	220 5% 1/4W	L702	1-408-421-00	INDUCTOR	100UH
R253	1-249-409-11	CARBON	220 5% 1/4W	L703	1-408-420-00	INDUCTOR	82UH
R254	1-249-409-11	CARBON	220 5% 1/4W	L704	1-408-410-00	INDUCTOR	12UH
R255	1-249-420-11	CARBON	1.8K 5% 1/4W	L705	1-408-411-00	INDUCTOR	15UH
R256	1-249-405-11	CARBON	100 5% 1/4W	L706	1-408-421-00	INDUCTOR	100UH
R257	1-249-409-11	CARBON	220 5% 1/4W	L707	1-408-411-00	INDUCTOR	15UH
R258	1-249-409-11	CARBON	220 5% 1/4W	<TRANSISTOR>			
R259	1-249-409-11	CARBON	220 5% 1/4W	Q701	8-729-326-11	TRANSISTOR	2SC2611
R260	1-249-409-11	CARBON	220 5% 1/4W	Q702	8-729-119-78	TRANSISTOR	2SC2785-HFE
R261	1-249-409-11	CARBON	220 5% 1/4W	Q703	8-729-200-17	TRANSISTOR	2SA1091
R262	1-249-409-11	CARBON	220 5% 1/4W	Q704	8-729-326-11	TRANSISTOR	2SC2611
R266	1-215-456-00	METAL	30K 1% 1/6W	Q705	8-729-119-78	TRANSISTOR	2SC2785-HFE
*****				Q706	8-729-200-17	TRANSISTOR	2SA1091
*A-1330-949-A C BOARD, COMPLETE				Q707	8-729-200-17	TRANSISTOR	2SA1091
*****				Q708	8-729-326-11	TRANSISTOR	2SC2611
*1-506-348-99 PIN, CONNECTOR 3P				Q709	8-729-119-78	TRANSISTOR	2SC2785-HFE
*1-508-768-00 PIN, CONNECTOR (5MM PITCH) 6P				Q710	8-729-255-12	TRANSISTOR	2SC2551
*1-564-511-11 PLUG, CONNECTOR 8P				Q711	8-729-119-76	TRANSISTOR	2SA1175-HFE
*4-379-160-01 COVER (REAR LID), CV				Q712	8-729-255-12	TRANSISTOR	2SC2551
*4-379-167-01 COVER (MAIN), CV				Q713	8-729-119-76	TRANSISTOR	2SA1175-HFE
<CAPACITOR>				Q714	8-729-200-17	TRANSISTOR	2SA1091
C701	1-162-116-00	CERAMIC	680PF 10% 2KV	Q715	8-729-200-17	TRANSISTOR	2SA1091
C702	1-136-601-11	FILM	0.01MF 5% 630V	Q716	8-729-200-17	TRANSISTOR	2SA1091
C703	1-123-875-11	ELECT	10MF 20% 50V	<RESISTOR>			
C704	1-123-946-00	ELECT	4.7MF 20% 250V	R701	1-216-392-11	METAL OXIDE	1.8 5% 3W F
C705	1-106-367-00	MYLAR	0.01MF 10% 200V	R702	1-202-848-00	SOLID	680K 10% 1/2W
C707	1-102-116-00	CERAMIC	680PF 10% 50V	R703	1-202-815-11	SOLID	47K 10% 1/2W
C708	1-102-116-00	CERAMIC	680PF 10% 50V	R704	1-202-846-00	SOLID	470K 10% 1/2W
C709	1-102-116-00	CERAMIC	680PF 10% 50V	R705	1-202-549-00	SOLID	100 10% 1/2W
C710	1-102-117-00	CERAMIC	820PF 10% 50V	R706	1-202-838-00	SOLID	100K 10% 1/2W
C711	1-126-233-11	ELECT	22MF 20% 25V	R707	1-202-842-11	SOLID	220K 10% 1/2W
C712	1-102-116-00	CERAMIC	680PF 10% 50V	R708	1-202-818-00	SOLID	1K 10% 1/2W
C713	1-102-117-00	CERAMIC	820PF 10% 50V	R709	1-202-818-00	SOLID	1K 10% 1/2W
C714	1-162-622-11	CERAMIC	330PF 10% 6.3KV	R710	1-202-818-00	SOLID	1K 10% 1/2W
C715	1-102-074-00	CERAMIC	0.001MF 10% 50V	R711	1-202-837-00	SOLID	82K 10% 1/2W
C718	1-102-074-00	CERAMIC	0.001MF 10% 50V	R712	1-202-842-11	SOLID	220K 10% 1/2W
C719	1-126-233-11	ELECT	22MF 20% 25V	R713 $\Delta$	1-216-486-51	METAL OXIDE	8.2K 5% 3W F
C720	1-126-233-11	ELECT	22MF 20% 25V	R714	1-249-409-11	CARBON	220 5% 1/4W
C721	1-102-074-00	CERAMIC	0.001MF 10% 50V	R715	1-202-818-00	SOLID	1K 10% 1/2W
C730	1-102-116-00	CERAMIC	680PF 10% 50V	R716 $\Delta$	1-216-486-51	METAL OXIDE	8.2K 5% 3W F
C731	1-102-116-00	CERAMIC	680PF 10% 50V	R717	1-249-409-11	CARBON	220 5% 1/4W
C732	1-102-116-00	CERAMIC	680PF 10% 50V	R718	1-249-409-11	CARBON	220 5% 1/4W
<DIODE>				R720 $\Delta$	1-216-486-51	METAL OXIDE	8.2K 5% 3W F
D701	8-719-911-19	DIODE	1SS119	R721	1-202-842-11	SOLID	220K 10% 1/2W
D702	8-719-911-19	DIODE	1SS119	R723	1-249-405-11	CARBON	100 5% 1/4W
D703	8-719-911-19	DIODE	1SS119	R724	1-249-405-11	CARBON	100 5% 1/4W
D704	8-719-911-19	DIODE	1SS119	R725	1-249-429-11	CARBON	10K 5% 1/4W
D705	8-719-911-19	DIODE	1SS119				
D706	8-719-911-19	DIODE	1SS119				
D707	8-719-911-19	DIODE	1SS119				
D708	8-719-911-19	DIODE	1SS119				
D709	8-719-911-19	DIODE	1SS119				



The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

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H2

**C      H<sub>2</sub>      K**

[illegible]



REF.NO. PART NO. DESCRIPTION

IC2452A 8-759-980-43 IC TDA2009A

## &lt;IC LINK&gt;

PS2401 1-532-984-11 LINK, IC  
PS2402 1-532-984-11 LINK, IC

## &lt;TRANSISTOR&gt;

Q2451 8-729-119-78 TRANSISTOR 2SC2785-HFE  
Q2452 8-729-119-78 TRANSISTOR 2SC2785-HFE  
Q2455 8-729-119-78 TRANSISTOR 2SC2785-HFE  
Q2456 8-729-119-76 TRANSISTOR 2SA1175-HFE  
Q2457 8-729-119-78 TRANSISTOR 2SC2785-HFE

Q2458 8-729-119-76 TRANSISTOR 2SA1175-HFE

## &lt;RESISTOR&gt;

R2424 1-215-421-00 METAL 1K 1% 1/6W  
R2425 1-215-409-00 METAL 330 1% 1/6W  
R2426 1-215-409-00 METAL 330 1% 1/6W  
R2427 1-215-421-00 METAL 1K 1% 1/6W  
R2433 1-215-437-00 METAL 4.7K 1% 1/6WR2438 1-215-437-00 METAL 4.7K 1% 1/6W  
R2439 1-249-441-11 CARBON 100K 5% 1/4W  
R2440 1-249-413-11 CARBON 470 5% 1/4W  
R2441 1-249-435-11 CARBON 33K 5% 1/4W  
R2442 1-249-441-11 CARBON 100K 5% 1/4WR2443 1-249-413-11 CARBON 470 5% 1/4W  
R2444 1-249-430-11 CARBON 12K 5% 1/4W  
R2445 1-249-430-11 CARBON 12K 5% 1/4W  
R2446 1-249-441-11 CARBON 100K 5% 1/4W  
R2447 1-249-439-11 CARBON 68K 5% 1/4WR2451 1-249-441-11 CARBON 100K 5% 1/4W  
R2452 1-249-441-11 CARBON 100K 5% 1/4W  
R2453 1-249-405-11 CARBON 100 5% 1/4W  
R2454 1-215-439-00 METAL 5.6K 1% 1/6W  
R2455 1-215-427-00 METAL 1.8K 1% 1/6WR2456 1-249-441-11 CARBON 100K 5% 1/4W  
R2457 1-249-441-11 CARBON 100K 5% 1/4W  
R2458 1-249-405-11 CARBON 100 5% 1/4W  
R2459 1-249-421-11 CARBON 2.2K 5% 1/4W  
R2460 1-249-421-11 CARBON 2.2K 5% 1/4WR2463 1-249-435-11 CARBON 33K 5% 1/4W  
R2464 1-249-441-11 CARBON 100K 5% 1/4W  
R2465 1-215-423-00 METAL 1.2K 1% 1/6W  
R2466 1-215-417-00 METAL 680 1% 1/6W  
R2468 1-215-387-00 METAL 39 1% 1/6WR2469 1-215-387-00 METAL 39 1% 1/6W  
R2470 1-249-385-51 CARBON 2.2 5% 1/4W F  
R2471 1-249-385-51 CARBON 2.2 5% 1/4W F  
R2473 1-249-421-11 CARBON 2.2K 5% 1/4W  
R2474 1-249-421-11 CARBON 2.2K 5% 1/4WR2483 1-215-439-00 METAL 5.6K 1% 1/6W  
R2484 1-215-427-00 METAL 1.8K 1% 1/6W  
R2487 1-249-430-11 CARBON 12K 5% 1/4W  
R2488 1-249-430-11 CARBON 12K 5% 1/4W  
R2489 1-215-423-00 METAL 1.2K 1% 1/6WR2491 1-215-387-00 METAL 39 1% 1/6W  
R2492 1-215-417-00 METAL 680 1% 1/6W  
R2493 1-215-387-00 METAL 39 1% 1/6W  
R2494 1-249-385-11 CARBON 2.2 5% 1/4W F  
R2495 1-249-385-11 CARBON 2.2 5% 1/4W FLes composants identifiés par  
une trame et une marque  $\Delta$   
sont critiques pour la sécurité.  
Ne les remplacer que par une  
pièce portant le numéro spécifié.The components identified by  
shading and mark  $\Delta$  are critical  
for safety.  
Replace only with part number  
specified.

REMARK REF.NO. PART NO. DESCRIPTION REMARK

R2497 1-249-421-11 CARBON 2.2K 5% 1/4W  
R2498 1-249-421-11 CARBON 2.2K 5% 1/4W

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\*1-629-620-11 N BOARD  
\*\*\*\*\*

\*1-564-505-11 PLUG, CONNECTOR 2P

## &lt;CAPACITOR&gt;

C890 1-124-925-11 ELECT 2.2MF 20% 50V  
C891 1-124-925-11 ELECT 2.2MF 20% 50V

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\*A-1394-173-A U BOARD, COMPLETE  
\*\*\*\*\*\*1-564-519-11 PLUG, CONNECTOR 4P  
\*1-564-523-11 PLUG, CONNECTOR 8P  
\*1-566-941-11 CONNECTOR, HINGE (TAB) 30P  
\*1-568-377-11 CONNECTOR, HINGE (TAB) 7P  
\*4-341-752-01 EYELET (EY1,EY2,EY3,EY4,EY5)

## &lt;CAPACITOR&gt;

C401 1-126-233-11 ELECT 22MF 20% 25V  
C402 1-101-004-00 CERAMIC 0.01MF 50V  
C403 1-124-499-11 ELECT 1MF 20% 50V  
C404 1-124-499-11 ELECT 1MF 20% 50V  
C405 1-126-233-11 ELECT 22MF 20% 25VC407 1-124-499-11 ELECT 1MF 20% 50V  
C408 1-124-499-11 ELECT 1MF 20% 50V  
C409 1-126-233-11 ELECT 22MF 20% 25V  
C410 1-123-875-11 ELECT 10MF 20% 50V  
C411 1-126-233-11 ELECT 22MF 20% 25VC413 1-124-499-11 ELECT 1MF 20% 50V  
C414 1-124-499-11 ELECT 1MF 20% 50V  
C415 1-126-233-11 ELECT 22MF 20% 25V  
C418 1-124-478-11 ELECT 100MF 20% 25V  
C419 1-124-478-11 ELECT 100MF 20% 25VC420 1-124-477-11 ELECT 47MF 20% 16V  
C421 1-126-103-11 ELECT 470MF 20% 16V  
C422 1-126-103-11 ELECT 470MF 20% 16V  
C423 1-101-004-00 CERAMIC 0.01MF 50V  
C424 1-126-233-11 ELECT 22MF 20% 25VC425 1-126-233-11 ELECT 22MF 20% 25V  
C426 1-124-477-11 ELECT 47MF 20% 16V  
C428 1-126-233-11 ELECT 22MF 20% 25V  
C429 1-124-589-11 ELECT 47MF 20% 16V  
C430 1-126-233-11 ELECT 22MF 20% 25VC431 1-124-478-11 ELECT 100MF 20% 25V  
C433 1-126-233-11 ELECT 22MF 20% 25V  
C434 1-126-233-11 ELECT 22MF 20% 25V  
C435 1-124-499-11 ELECT 1MF 20% 50V  
C436 1-124-499-11 ELECT 1MF 20% 50VC437 1-126-233-11 ELECT 22MF 20% 25V  
C438 1-126-233-11 ELECT 22MF 20% 25V  
C439 1-126-233-11 ELECT 22MF 20% 25V  
C440 1-124-477-11 ELECT 47MF 20% 16V  
C441 1-124-477-11 ELECT 47MF 20% 16VC442 1-126-233-11 ELECT 22MF 20% 25V  
C445 1-124-589-11 ELECT 47MF 20% 16V  
C462 1-124-589-11 ELECT 47MF 20% 16V  
C490 1-101-004-00 CERAMIC 0.01MF 50V

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C491	1-124-477-11	ELECT 47MF	20% 16V	<RESISTOR>			
C492	1-126-233-11	ELECT 22MF	20% 25V	R401	1-247-804-11	CARBON 75 5% 1/4W	
C493	1-124-477-11	ELECT 47MF	20% 16V	R402	1-247-804-11	CARBON 75 5% 1/4W	
C495	1-102-973-00	CERAMIC 100PF	5% 50V	R403	1-249-434-11	CARBON 27K 5% 1/4W	
C1402	1-124-589-11	ELECT 47MF	20% 16V	R404	1-247-885-00	CARBON 180K 5% 1/4W	
C1403	1-124-589-11	ELECT 47MF	20% 16V	R405	1-247-885-00	CARBON 180K 5% 1/4W	
<DIODE>				R406	1-249-434-11	CARBON 27K 5% 1/4W	
D401	8-719-109-97	DIODE RD6.8ES-B2		R407	1-247-804-11	CARBON 75 5% 1/4W	
D402	8-719-109-97	DIODE RD6.8ES-B2		R409	1-249-434-11	CARBON 27K 5% 1/4W	
D403	8-719-109-97	DIODE RD6.8ES-B2		R410	1-247-885-00	CARBON 180K 5% 1/4W	
D408	8-719-109-97	DIODE RD6.8ES-B2		R411	1-247-804-11	CARBON 75 5% 1/4W	
D409	8-719-109-97	DIODE RD6.8ES-B2		R413	1-249-434-11	CARBON 27K 5% 1/4W	
D410	8-719-109-97	DIODE RD6.8ES-B2		R414	1-247-885-00	CARBON 180K 5% 1/4W	
D411	8-719-109-97	DIODE RD6.8ES-B2		R415	1-249-434-11	CARBON 27K 5% 1/4W	
D415	8-719-110-17	DIODE RD10ES-B2		R416	1-247-885-00	CARBON 180K 5% 1/4W	
D418	8-719-911-19	DIODE 1SS119		R417	1-247-895-00	CARBON 470K 5% 1/4W	
D419	8-719-911-19	DIODE 1SS119		R418	1-249-417-11	CARBON 1K 5% 1/4W	
D421	8-719-109-97	DIODE RD6.8ES-B2		R419	1-247-895-00	CARBON 470K 5% 1/4W	
D422	8-719-109-97	DIODE RD6.8ES-B2		R420	1-249-417-11	CARBON 1K 5% 1/4W	
D423	8-719-109-97	DIODE RD6.8ES-B2		R421	1-247-804-11	CARBON 75 5% 1/4W	
<IC>				R422	1-247-895-00	CARBON 470K 5% 1/4W	
IC401	8-759-710-68	IC NJM2245S		R423	1-247-895-00	CARBON 470K 5% 1/4W	
IC402	8-759-710-68	IC NJM2245S		R424	1-247-895-00	CARBON 470K 5% 1/4W	
IC405	8-759-710-69	IC NJM2233BS		R425	1-247-895-00	CARBON 470K 5% 1/4W	
IC444	8-752-032-27	IC CXA1114P		R426	1-249-424-11	CARBON 3.9K 5% 1/4W	
IC1401	8-759-710-69	IC NJM2233BS		R427	1-247-895-00	CARBON 470K 5% 1/4W	
<JACK>				R428	1-249-424-11	CARBON 3.9K 5% 1/4W	
J401	1-565-931-11	TERMINAL BLOCK, S 3P		R429	1-249-434-11	CARBON 27K 5% 1/4W	
J402	1-565-840-11	PIN JACK BLOCK 6P		R432	1-249-405-11	CARBON 100 5% 1/4W	
J403	1-565-931-11	TERMINAL BLOCK, S 3P		R433	1-249-413-11	CARBON 470 5% 1/4W	
J404	1-565-838-11	PIN JACK BLOCK 2P		R434	1-249-409-11	CARBON 220 5% 1/4W	
<COIL>				R435	1-249-403-11	CARBON 68 5% 1/4W	
L401	1-408-412-00	INDUCTOR 18UH		R436	1-249-425-11	CARBON 4.7K 5% 1/4W	
L404	1-410-663-31	INDUCTOR 10UH		R437	1-247-885-00	CARBON 180K 5% 1/4W	
<TRANSISTOR>				R438	1-249-405-11	CARBON 100 5% 1/4W	
Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE		R439	1-249-413-11	CARBON 470 5% 1/4W	
Q402	8-729-119-78	TRANSISTOR 2SC2785-HFE		R440	1-249-417-11	CARBON 1K 5% 1/4W	
Q403	8-729-119-76	TRANSISTOR 2SA1175-HFE		R441	1-249-409-11	CARBON 220 5% 1/4W	
Q404	8-729-119-78	TRANSISTOR 2SC2785-HFE		R447	1-249-409-11	CARBON 220 5% 1/4W	
Q405	8-729-119-78	TRANSISTOR 2SC2785-HFE		R448	1-249-409-11	CARBON 220 5% 1/4W	
Q406	8-729-119-78	TRANSISTOR 2SC2785-HFE		R449	1-249-413-11	CARBON 470 5% 1/4W	
Q407	8-729-119-78	TRANSISTOR 2SC2785-HFE		R450	1-249-409-11	CARBON 220 5% 1/4W	
Q408	8-729-119-78	TRANSISTOR 2SC2785-HFE		R451	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q409	8-729-119-78	TRANSISTOR 2SC2785-HFE		R452	1-249-433-11	CARBON 22K 5% 1/4W	
Q410	8-729-119-78	TRANSISTOR 2SC2785-HFE		R457	1-249-405-11	CARBON 100 5% 1/4W	
Q411	8-729-119-78	TRANSISTOR 2SC2785-HFE		R458	1-249-405-11	CARBON 100 5% 1/4W	
Q412	8-729-119-76	TRANSISTOR 2SA1175-HFE		R459	1-249-417-11	CARBON 1K 5% 1/4W	
Q413	8-729-119-76	TRANSISTOR 2SA1175-HFE		R460	1-249-405-11	CARBON 100 5% 1/4W	
Q414	8-729-119-76	TRANSISTOR 2SA1175-HFE		R461	1-249-417-11	CARBON 1K 5% 1/4W	
Q415	8-729-119-78	TRANSISTOR 2SC2785-HFE		R462	1-249-417-11	CARBON 1K 5% 1/4W	
Q416	8-729-119-78	TRANSISTOR 2SC2785-HFE		R463	1-249-405-11	CARBON 100 5% 1/4W	
Q491	8-729-119-78	TRANSISTOR 2SC2785-HFE		R465	1-249-417-11	CARBON 1K 5% 1/4W	
Q492	8-729-119-78	TRANSISTOR 2SC2785-HFE		R466	1-249-405-11	CARBON 100 5% 1/4W	
Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE		R467	1-249-405-11	CARBON 100 5% 1/4W	
				R468	1-249-433-11	CARBON 22K 5% 1/4W	
				R469	1-249-433-11	CARBON 22K 5% 1/4W	
				R470	1-249-403-11	CARBON 68 5% 1/4W	
				R471	1-249-403-11	CARBON 68 5% 1/4W	
				R472	1-249-403-11	CARBON 68 5% 1/4W	
				R474	1-249-405-11	CARBON 100 5% 1/4W	
				R475	1-249-417-11	CARBON 1K 5% 1/4W	
				R476	1-249-433-11	CARBON 22K 5% 1/4W	

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Les composants identifiés par  
une trame et une marque  $\Delta$   
sont critiques pour la sécurité.  
Ne les remplacer que par une  
pièce portant le numéro spécifié.

The components identified by  
shading and mark  $\Delta$  are critical  
for safety.  
Replace only with part number  
specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R479	1-249-433-11	CARBON	22K 5% 1/4W		3-750-053-21	MANUAL, INSTRUCTION	
R480	1-249-433-11	CARBON	22K 5% 1/4W		3-750-053-31	MANUAL, INSTRUCTION (CND ONLY)	
R481	1-249-433-11	CARBON	22K 5% 1/4W		*4-384-027-01	BAG, PROTECTION	
R483	1-249-417-11	CARBON	1K 5% 1/4W				
R484	1-215-455-00	METAL	27K 1% 1/6W				
R485	1-215-475-00	METAL	180K 1% 1/6W		*4-393-649-01	CUSHION (UPPER) (ASSY)	
R486	1-215-455-00	METAL	27K 1% 1/6W		*4-393-650-01	CUSHION (LOWER) (ASSY)	
R487	1-215-475-00	METAL	180K 1% 1/6W		*4-393-651-01	INDIVIDUAL CARTON	
R488	1-249-433-11	CARBON	22K 5% 1/4W				
R489	1-249-433-11	CARBON	22K 5% 1/4W				
R490	1-249-417-11	CARBON	1K 5% 1/4W				
R491	1-249-417-11	CARBON	1K 5% 1/4W				
R492	1-249-417-11	CARBON	1K 5% 1/4W				
R493	1-249-431-11	CARBON	15K 5% 1/4W				
R494	1-249-429-11	CARBON	10K 5% 1/4W				
R495	1-249-417-11	CARBON	1K 5% 1/4W				
R496	1-249-425-11	CARBON	4.7K 5% 1/4W				
R497	1-249-417-11	CARBON	1K 5% 1/4W				
R498	1-249-417-11	CARBON	1K 5% 1/4W				
R1401	1-249-405-11	CARBON	100 5% 1/4W				
R1402	1-249-405-11	CARBON	100 5% 1/4W				
R1403	1-249-417-11	CARBON	1K 5% 1/4W				
R1420	1-249-413-11	CARBON	470 5% 1/4W				
R1421	1-249-413-11	CARBON	470 5% 1/4W				
R1422	1-249-405-11	CARBON	100 5% 1/4W				
R1423	1-249-441-11	CARBON	100K 5% 1/4W				
R1424	1-249-429-11	CARBON	10K 5% 1/4W				
R1425	1-249-429-11	CARBON	10K 5% 1/4W				
<SWITCH>							
S401	1-571-729-11	SWITCH, SLIDE					
S402	1-554-303-21	SWITCH, KEY BOARD					
*****							
	*1-629-628-11	FD BOARD					
		*****					
*****							
MISCELLANEOUS							
*****							
	$\Delta$ 1-417-177-11	SELECTOR, ANTENNA (AS-1)					
	$\Delta$ 1-426-350-21	COIL, DEMAGNETIZATION					
	$\Delta$ 1-451-275-11	DEFLECTION YOKE (Y28PFA)					
	1-452-032-00	MAGNET, DISK; 10MM $\phi$					
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM $\phi$					
	1-503-917-11	SPEAKER					
	1-544-095-11	SPEAKER					
	*1-556-945-21	CABLE, P-P					
	$\Delta$ 1-559-396-11	CORD, POWER					
	*1-568-507-11	CONNECTOR, BRIDGE 15P					
	8-741-159-30	IC SBX1593-01					
V901	$\Delta$ 8-737-753-05	PICTURE TUBE (A68JMT50X)					
*****							
ACCESSORIES AND PACKING MATERIALS							
*****							
PART NO.	DESCRIPTION	REMARK					
1-465-170-11	REMOTE COMMANDER (RM-763)						
1-562-443-11	CONNECTOR, ANTENNA						

# KV-27HSR10

## RM-763

# SONY SERVICE MANUAL

*US Model*

*Chassis No. SCC-C59C-A*

*Canadian Model*

*Chassis No. SCC-C60C-A*

## SUPPLEMENT-1

File this supplement with the Service Manual.

### INTRODUCTION

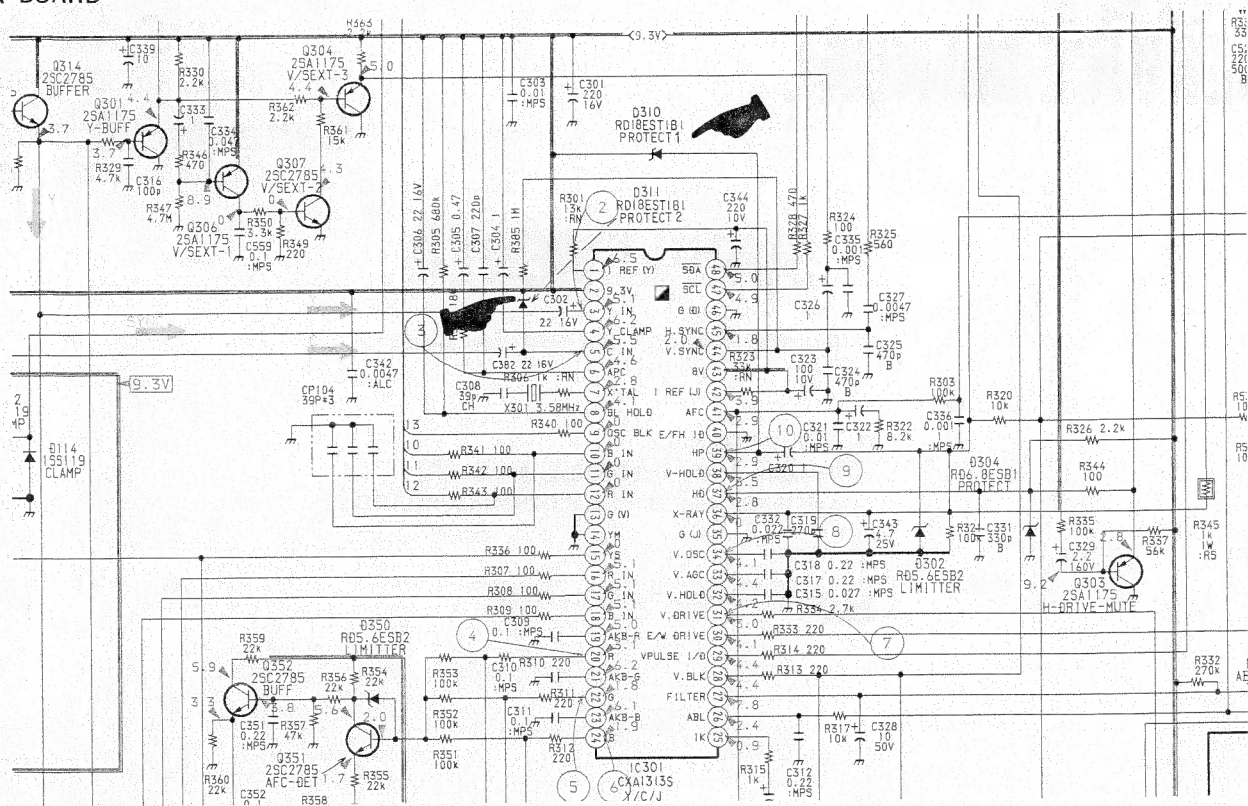
Addition: D311 and D312 on A BOARD

Addition: D251, D252 and D253 on X BOARD

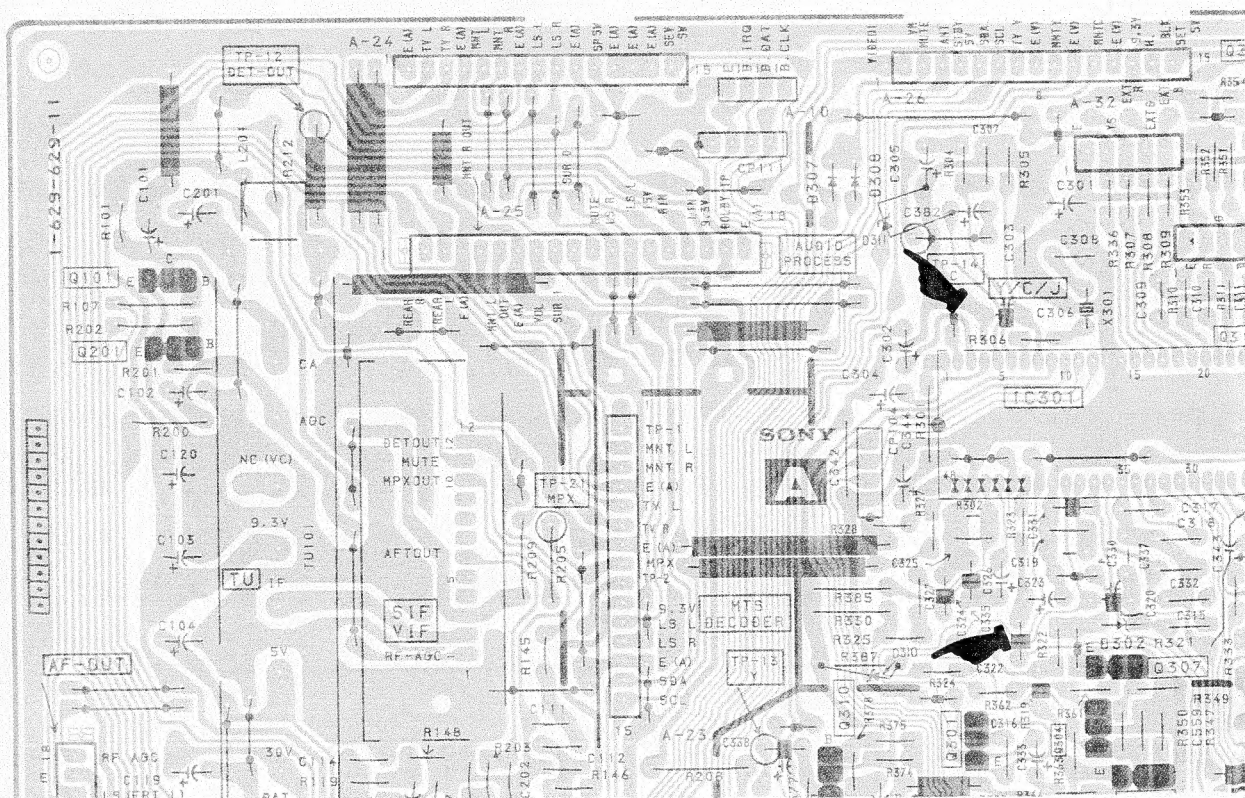
 : Indicates modified portion



**6-4. SCHEMATIC DIAGRAMS: PAGE 34 – 35**  
**A BOARD**



**6-3. PRINTED WIRING BOARDS: PAGE 31**  
**A BOARD**







# KV-27HSR10

## RM-763

# SONY SERVICE MANUAL

*US Model*  
Chassis No. SCC-C59C-A

# SUPPLEMENT-2

*Canadian Model*  
Chassis No. SCC-C60C-A

File this supplement with the service manual.

## INTRODUCTION

 : Indicates added portion

1. Added : X1 board.

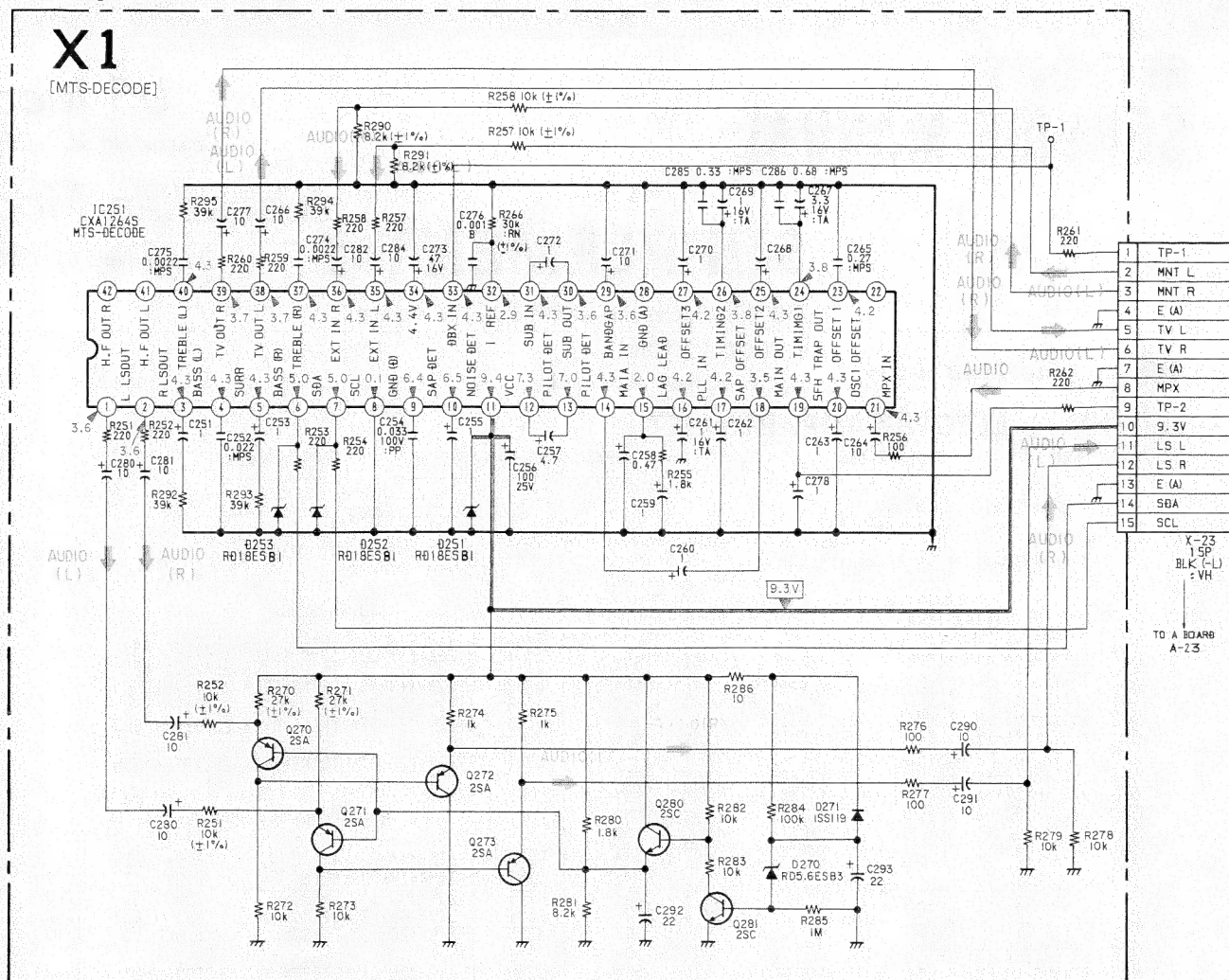
## SECTION 8 ELECTRICAL PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
*1-635-250-11	X1 BOARD					<IC>	
	*****						
*1-568-380-21	PIN, CONNECTOR 15P			1C251	8-752-035-54	IC CXA1264S	
						<TRANSISTOR>	
	<CAPACITOR>						
C251	1-124-791-11	ELECT	1MF	20%	50V	Q270	8-729-119-76 TRANSISTOR 2SA1175-HFE
C252	1-136-157-00	FILM	0.022MF	5%	50V	Q271	8-729-119-76 TRANSISTOR 2SA1175-HFE
C253	1-124-791-11	ELECT	1MF	20%	50V	Q272	8-729-119-76 TRANSISTOR 2SA1175-HFE
C254	1-130-309-00	FILM	0.033MF	5%	100V	Q273	8-729-119-76 TRANSISTOR 2SA1175-HFE
C255	1-124-791-11	ELECT	1MF	20%	50V	Q280	8-729-423-37 TRANSISTOR 2SC3311A-QRS
C256	1-124-478-11	ELECT	100MF	20%	25V	Q281	8-729-423-37 TRANSISTOR 2SC3311A-QRS
C257	1-124-927-11	ELECT	4.7MF	20%	50V		
C258	1-124-902-00	ELECT	0.47MF	20%	50V		<RESISTOR>
C259	1-124-791-11	ELECT	1MF	20%	50V	R251	1-215-443-00 METAL 8.2K 1%
C260	1-124-791-11	ELECT	1MF	20%	50V	R252	1-215-443-00 METAL 8.2K 1%
C261	1-131-347-00	TANTALUM	1MF	20%	16V	R253	1-249-409-11 CARBON 220 5%
C262	1-124-791-11	ELECT	1MF	20%	50V	R254	1-249-409-11 CARBON 220 5%
C263	1-124-791-11	ELECT	1MF	20%	50V	R255	1-249-420-11 CARBON 1.8K 5%
C264	1-123-875-11	ELECT	10MF	20%	50V	R256	1-249-405-11 CARBON 100 5%
C265	1-136-170-00	FILM	0.27MF	5%	50V	R257	1-215-445-00 METAL 10K 1%
C266	1-123-875-11	ELECT	10MF	20%	50V	R258	1-215-445-00 METAL 10K 1%
C267	1-131-368-00	TANTALUM	3.3MF	10%	16V	R259	1-249-409-11 CARBON 220 5%
C268	1-124-791-11	ELECT	1MF	20%	50V	R260	1-249-409-11 CARBON 220 5%
C269	1-131-347-00	TANTALUM	1MF	20%	16V	R261	1-249-409-11 CARBON 220 5%
C270	1-124-791-11	ELECT	1MF	20%	50V	R262	1-249-409-11 CARBON 220 5%
C271	1-123-875-11	ELECT	10MF	20%	50V	R266	1-215-456-00 METAL 30K 1%
C272	1-124-791-11	ELECT	1MF	20%	50V	R270	1-249-428-11 CARBON 8.2K 5%
C273	1-124-477-11	ELECT	47MF	20%	16V	R271	1-249-428-11 CARBON 8.2K 5%
C274	1-130-475-00	MYLAR	0.0022MF	5%	50V	R272	1-215-455-00 METAL 27K 1%
C275	1-130-475-00	MYLAR	0.0022MF	5%	50V	R273	1-215-455-00 METAL 27K 1%
C276	1-102-074-00	CERAMIC	0.001MF	10%	50V	R274	1-249-417-11 CARBON 1K 5%
C277	1-123-875-11	ELECT	10MF	20%	50V	R275	1-249-417-11 CARBON 1K 5%
C278	1-124-791-11	ELECT	1MF	20%	50V	R276	1-249-405-11 CARBON 100 5%
C280	1-123-875-11	ELECT	10MF	20%	50V	R277	1-249-405-11 CARBON 100 5%
C281	1-123-875-11	ELECT	10MF	20%	50V	R278	1-249-429-11 CARBON 10K 5%
C282	1-124-927-11	ELECT	4.7MF	20%	50V	R279	1-249-429-11 CARBON 10K 5%
C284	1-124-927-11	ELECT	4.7MF	20%	50V	R280	1-249-420-11 CARBON 1.8K 5%
C285	1-136-171-00	FILM	0.33MF	5%	50V	R281	1-249-428-11 CARBON 8.2K 5%
C286	1-136-175-00	FILM	0.68MF	5%	50V	R282	1-249-429-11 CARBON 10K 5%
C290	1-123-875-11	ELECT	10MF	20%	50V	R283	1-249-429-11 CARBON 10K 5%
C291	1-123-875-11	ELECT	10MF	20%	50V	R284	1-249-441-11 CARBON 100K 5%
C292	1-123-875-11	ELECT	10MF	20%	50V	R285	1-247-903-00 CARBON 1M 5%
C293	1-126-233-11	ELECT	22MF	20%	50V	R286	1-249-393-11 CARBON 10 5%
C294	1-123-875-11	ELECT	10MF	20%	50V	R290	1-215-441-00 METAL 6.8K 1%
						R291	1-215-441-00 METAL 6.8K 1%
	<DIODE>					R292	1-249-433-11 CARBON 22K 5%
D251	8-719-110-48	DIODE	RD18ES-B1			R293	1-249-433-11 CARBON 22K 5%
D252	8-719-110-48	DIODE	RD18ES-B1			R294	1-249-433-11 CARBON 22K 5%
D253	8-719-110-48	DIODE	RD18ES-B1			R295	1-249-433-11 CARBON 22K 5%
D270	8-719-109-90	DIODE	RD5.6ES-B3				
D271	8-719-911-19	DIODE	ISS119				

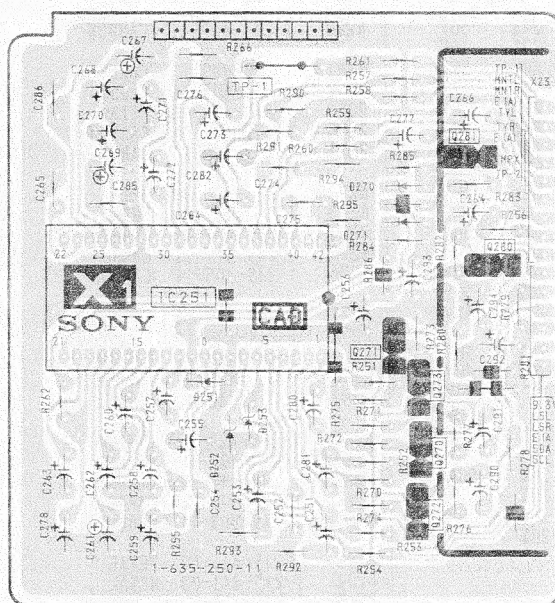
## SECTION 6 DIAGRAMS

### 6-2. SCHEMATIC DIAGRAMS AND PRINTED WIRING

#### X1 BOARD



-X1 Board-



**Sony Corporation**  
TV Group